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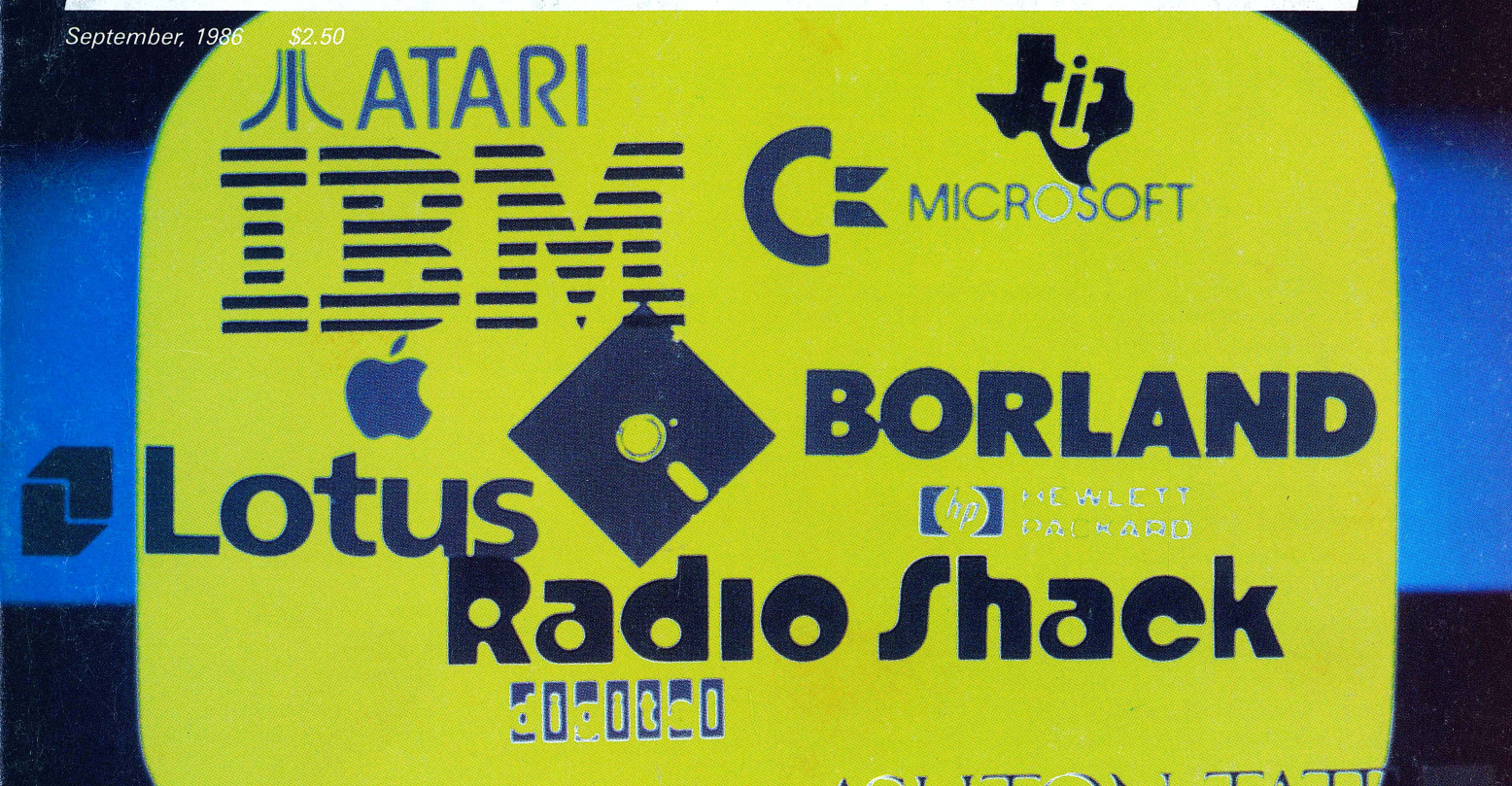
ONLINE TODAY

THE COMPUTER COMMUNICATIONS MAGAZINE

September, 1986 $2.50



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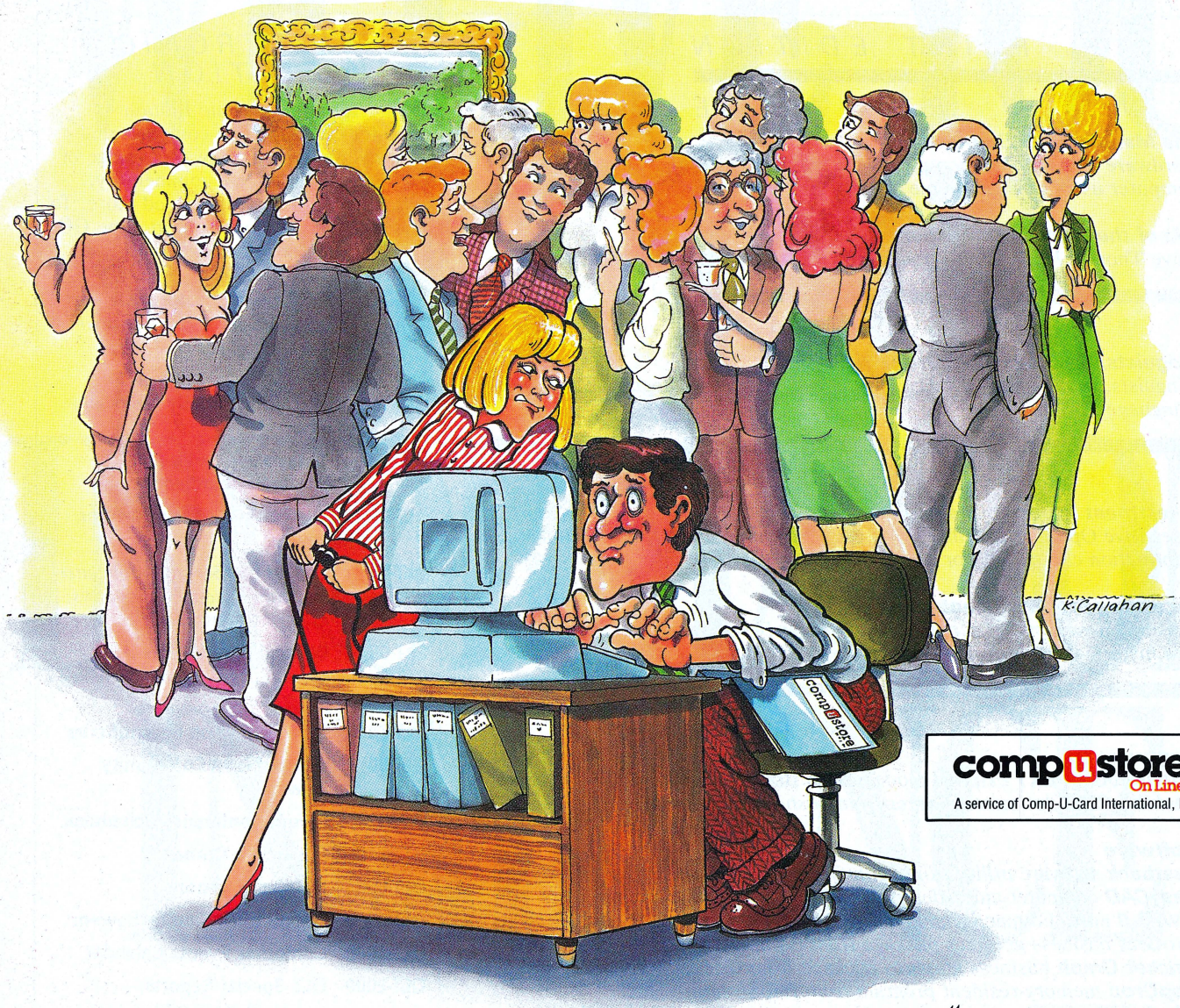

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Online Today is published monthly in the United States of America by CompuServe Incorporated, 5000 Arlington Centre Boulevard, Columbus, OH 43220. Application to mail at Second-Class postage rates is pending at Columbus, Ohio, and additional mailing offices. POSTMASTER: Send address changes to *Online Today* Reader Administration, P.O. Box 639, Columbus, OH 43216-0639.

ELECTRONIC EDITION

Online Today Electronic Edition provides daily-updated computer and information industry news, coverage of CompuServe services, commentary, computer product reviews and more. To access the *Electronic Edition*, type GO OLT at any CompuServe prompt.

GO OLT **A GO-page directory** *of the day's top computer industry news and a summary of key OLT page numbers.*

OLT-160 **The Monitor Daily News** *main menu.*

OLT-90 **Today's computer and information industry news.**

OLT-20 **The current week's Monitor news.**

OLT-130 **Behind the Screens.** *Computer and information industry news, rumor and gossip.*

OLT-50 **CompuServe Update** *main menu. Lists all CompuServe news departments.*

OLT-70 **What's New on CompuServe.**

OLT-80 **CompuServe Community News.**

OLT-120 **Forum Conference Schedules.**

OLT-140 **Beginner's Corner.**

OLT-600 **Resident Memory.**

OLT-3500 **Online With Charles Bowen.**

OLT-1000 **Computer Events Calendar.**

OLT-2000 **OLT Special Reports.**

OLT-3000 **Computer Legislation Database.**

OLT-30 **Letters to the Editor** *main menu.*

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OLT-240 **Book Reviews** *main menu.*

OLT-250 **New Product Announcements** *main menu.*

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EBB-160 **Online Today Display ads** *main menu.*

EBB-70 **Shopper's Guide.**

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DEAR READER

Online services provide valuable communication links for many facets of the computer-using public. Indeed, *Online Today*'s cover feature each month is dedicated to exploration of new or updated networking applications. Occasionally, we will examine a particularly exciting, new application that has exceptional potential and value for our readers. This month's topic, "The Manufacturer Connection" is one such application.

"The Manufacturer Connection" is simply this: Software and hardware manufacturers use online services such as CompuServe to communicate with and elicit feedback from their buying public. The buying public uses the Connection to get answers to questions about the manufacturers' products.

The Connection is a simple application with some clear-cut advantages for businesses and consumers. First, companies view the online forum as an advanced way to assist users — it is a practical alternative to expensive toll-free telephone banks. With forum software, companies can post answers to often-asked questions instead of dealing with the same questions over and over again on high-cost WATS lines.

Much more information can be communicated in an online setting, and services can be provided that are not possible in any other form of customer support. For example, companies can offer program patches for downloading, conduct live conferences hosted by the president, and enlist the help of users in product development — all within the confines of a single forum.

For the consumer, the online approach means more two-way interaction and an alternative to lengthy 800-number Muzak concerts, or worse, a long-distance toll for assistance on what often turns out to be a simple problem.

Probably the most encouraging aspect of this new trend is the caliber of companies trying the online method of customer support. On CompuServe, highly-respected firms such as IBM, Lotus, Ashton-Tate, Borland International, Digital Equipment, Apple, Hewlett-Packard, Microsoft and others have established successful consumer-oriented forums.

We hope you'll take time to read this month's feature beginning on page 10. Chances are you are using a product manufactured by one of the companies who have established online customer centers. And, if after reading you decide to check it out online, chances are you'll find some valuable information that will have made it well worth your time.

Douglas G. Branstetter
Editor

ONLINE TODAY

***Online Today*™, September 1986**
Volume 5 Number 9

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Guidelines to Requesting Information Through EBB

Electronic Bounce Back

Electronic Bounce Back is *Online Today*'s electronic version of the traditional reader inquiry card. To request additional information about products or services described in *Online Today*, simply access CompuServe and type GO EBB at any prompt.

```
CompuServe                    Page EBB-1
ONLINE TODAY ADVERTISERS
ELECTRONIC BOUNCE BACK (EBB)
  1. EBB Instructions
  2. Online Today Display Ads
  3. Print Edition Reviews
  4. Shopper's Guide Classifieds
```

Each issue of *Online Today* is filled with information which CompuServe subscribers benefit from having close at hand for reference.

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Both styles of case are handcrafted in leather-like fabric, similar to the storage units used by libraries to shelve and preserve their periodicals. And the spines of all cases are embossed with the *Online Today* logo for easy identification on any bookshelf.

The binders open flat like a book and hold up to 12 magazines each with a sturdy cable that passes through the center pages of each issue.

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Philadelphia, PA 19134

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Card# _____ Exp. Date _____

Signature _____

Or Call Toll Free 1-800-972-5858 (Charge Orders Only)

Name _____

Address (No P.O. Box, Please) _____

City _____ State _____ Zip _____

Pa. residents add 6% sales tax.

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Display Ads

GO EBB-160. Inquiries to this section will be followed by a brief description of the *Online Today* ad. To request additional printed information, simply enter your name and address at the prompts.* EBB will add your User ID number and electronically forward your request to the appropriate advertiser(s). The names, addresses and User ID numbers will also be forwarded via US Mail at the end of each month.

```
CompuServe                    Page EBB-160
ONLINE TODAY ADVERTISERS/EBB
  1. Sept. 1986 Advertisers
  2. August 1986 Advertisers
  3. July 1986 Advertisers
```

Editorial Articles/Reviews

At the end of each electronic version product review, you'll be asked if you wish to request further information through the Electronic Bounce Back system. A "yes" response will let the system prompt you for your name, address and other information so that your request can be forwarded to the appropriate company. If you respond "no," the system will return you to the previous menu.

To request information about products reviewed in the print edition, go to page EBB-280 and select the appropriate listing, such as September Hardware Reviews. At the next menu, select the product you're interested in. If you answer "yes" at the question prompt, the EBB system will prompt you for the necessary information.

Requests to these sections will be stored and forwarded by traditional mail once each month.

```
CompuServe                    Page EBB-280
REVIEW LISTINGS/PRINT EDITION
  1. Sept. Hardware Listings
  2. Sept. Software Listings
  3. Sept. New Product Listings
```

Shopper's Guide

GO EBB-70. This is *Online Today*'s classified section and is designed to enable readers to easily scan areas of interest.

To request information from Shopper's Guide advertisers, send messages via CompuServe EasyPlex or use traditional methods of communication.

```
CompuServe                    Page EBB-70
SHOPPER'S GUIDE
  1. About Shopper's Guide
  2. Rates and Information
  3. Software
  4. Services
  5. Hardware
  6. General
```

***Note:**
Additional requests during the same session will not require you to re-enter your name and address.

Gateways Article

The excellent article about gateways (July 1986) overlooks an area of great need for integrated information access: electronic mail. EasyPlex, MCI Mail, EasyLink and a host of specialized mail services each are going their separate ways — and wondering why growth is slow.

In the early days of the telephone, the same thing happened, until the utilities realized that only an integrated communication system makes good business sense. When will the electronic communication utilities make the same discovery?

Daniel Levinson, MD
College of Medicine
University of Arizona
Tucson, Ariz.

Farewell COBOL?

This is a response to the Monitor article, "Farewell COBOL" (July 1986).

Is COBOL dead? I don't believe so. The 27-year-old COBOL language was revised in September 1985 by the International and American COBOL Committees and released as COBOL 85.

The new COBOL 85 language has been improved by adding new features to aid in its use with structured software systems. These new features include nested programs (programs contained in other programs), global/local files and data, external files and records for data sharing and data protection for transferring control to and from other COBOL (and non-COBOL) subroutines and subprograms.

A new multibranch case statement EVALUATE has been added as well as a new INITIALIZE statement for resetting large amounts of data easily. New "do-while" and "do-until" versions of the PERFORM statement have been added as well as a new version of PERFORM. A new REPLACE statement has been added to deal with potential incompatibilities arising from using an "old" COBOL program (COBOL 74/68) with a new COBOL 85 compiler.

COBOL remains the business community's mainstay for business application development. There is no other language around today (certainly not RPG III as mentioned in the Monitor article) ready to take over COBOL's role in business application development. To ensure COBOL's relevance in the future, the procedures for updating the COBOL language have been streamlined and the business community can expect the COBOL language to be extended more rapidly (and compatibly) from now on.

Even the micro world is discovering COBOL. There are no less than eight certified high-level COBOL compilers running on microcomputers today.

In my lectures and workshops on the new COBOL 85 language in the United States and Europe, the reaction I hear most often to the new COBOL 85 language from systems programming managers, programmers and teachers is enthusiastic acceptance.

Is COBOL dead?
Certainly not!

Jerome Garfunkel
Litchfield, Conn.

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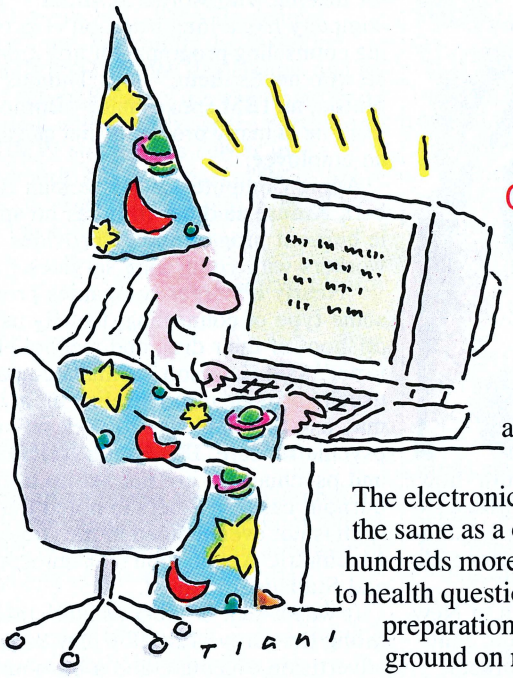

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Burning Out on the Job

Do you hate your job? Do you feel prisoner to a job that offers good pay but little satisfaction? If so, you may be suffering from "professional burnout," a disease afflicting an ever-growing number of executives and managers.

For Frank, who does not want his last name used, the symptoms of professional burnout started slowly, with vague pains in the neck and back that eventually led to physical exhaustion. "I would wake up in the morning, drag myself into work, sit behind my desk and stare into space," he said.

A 31-year-old local area network manager, Frank said his symptoms grew progressively worse. "It got to the point where I could not do anything. The network began falling apart, and my boss

thought I was on drugs. The truth, however, was that I could not cope with a situation that had our department expanding from a 30-node network to a 200-node system in less than six months."

According to Henry Emerson, a New York-based consultant who helps companies deal with burned-out workers, Frank's symptoms are not unusual. "You can walk into nearly any company in America and find people who are little more than performing zombies," he says.

Although precise statistics on professional burnout are hard to come by, an indication of the severity of the problem can be found in figures published by the Opinion Research Corp. of Princeton, N.J. According to the firm, in the early 1970s, 57 percent of executives claimed they were satisfied with their jobs. By 1980, however, the figure had dropped to 41 percent.

Bill Lyons, an executive vice president with Ranbar Associates, a Boston-based executive search firm, thinks the word "burnout" is merely a new term for an old problem — job pressure. Lyons, who manages the company's Huntington, Long Island, office, claims he sees many burnout cases in the high-tech and aerospace industries.

"These are people who have been literally swallowed up by their jobs," he said. "They are performing difficult tasks on complex equipment, but they feel unappreciated."

One of the biggest problems facing sufferers of burnout, noted both Emerson and Lyons, is finding help. LAN manager Frank got assistance from his company through an in-house program designed to cope with burnout and other job-related illnesses. Such programs are rare.

Among computer firms, IBM has perhaps the most comprehensive program for dealing with worker burnout. "The company has a long tradition of providing counseling programs for any employee who needs them," says Thomas Mattia, an IBM spokesman. "Burnout is just one of many problems that can affect an employee."

Apple Computer spokeswoman Barbara Krause said her firm has no specific burnout program, but "provides workers with counseling services."

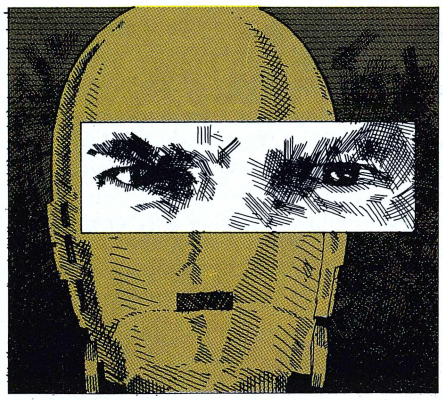
"Nearly all larger companies provide some type of counseling, usually as an offshoot of their drug and alcohol efforts," said Emerson. "Small companies usually provide no counseling or, at best, may ask the employee to seek off-site psychiatric care. But most psychologists and psychiatrists are not set up to help burnout cases." Emerson noted that the term is not even defined in the American Psychiatric Association's Diagnostic and Statistical Manual.

It was a lack of independent counseling that drove Lowell Cohn, a former advertising executive and a burnout victim himself, to establish a center for dealing with the problem. Located in Manhattan, the Biofeedback Study Center not only helps job burnout sufferers but also trains professionals in the treatment of the disorder.

Cohn believes that independent treatment facilities are destined to play a vital role in burnout treatment. "An executive's career is not likely to be helped by an admission of burnout," he said.

"Like any illness, the proper course of treatment for burnout is not to ignore it or hope that it goes away. Any company with employees in high pressure situations is hurting itself if it does not have realistic plans to help burnout victims. In the high-tech industry, burnout goes with the territory," Cohn said.

— John Edwards



Robot Eyes

On the whole, robots have serious vision problems. That is the assessment of Norman Griswold, an associate professor of electrical engineering at Texas A&M University.

Griswold, with the help of funds provided by NASA's Johnson Space Center, claims he has found a way to help robots see more like people do (people with 20/20 vision, anyway). What he has developed is an electronic "eye" that perceives depth much in the same way human eyes do.

"Robot vision with depth perception is critical in space and underwater applications," he said. "It is required for grasping operations and for knowing how far to travel."

The Griswold system combines the output of two parallel cameras into a single computer-recognizable three-dimensional image in about 10 seconds. Griswold noted that a prime use for the camera is expected to be the control of autonomous vehicles — vehicles that drive themselves using artificial intelligence.

"In the past, we have had robot-driven carts on Mars, on the moon and underwater, but the approach used was based on computer-intensive calculations that required lengthy processing times. The robot would send out the information, get an answer, move a bit, wait for more processing and another answer and move a little bit more," he said.

Griswold claimed that his stereo vision system was inspired by his study of medical journals. "I tried to learn just how humans see and how a computer can be used to simulate brain function," he said.

"Compared to human eyes and the brain, our system is still pretty rudimentary, but it is a lot better than what we had before," noted Griswold.

Minitel Hits the Road

France's successful Minitel videotex system, well known for its online national telephone directory, is being used in some unusual ways by companies in the transportation industry.

The European trucking industry, for example, is using the Minitel to better manage freight transportation, according to *Telematique News*. The system, housed on a service bureau computer and operated on several IBM minicomputers, is called Fretel and has electronically linked 60 trucking companies and forwarding agents.

Using the Minitel, members of Fretel post and receive such messages as, "I am looking for a truck departing Zurich tomorrow for transportation of five tons of freight to Paris."

Only professional truckers or freight forwarders may belong to Fretel, which costs about $150 for a year's subscription, plus about $12 or $13 an hour for consultation charges.

In addition to international freight exchange information, Fretel offers its members an electronic mailbox, shipping schedules from all European posts, information on freight tariffs and regulations, and up-to-date information on road and traffic conditions.

Mobil Oil of France may start a gas war with Minitel. Mobil has equipped 150 of its gas stations in the Paris area with Minitels for marketing information as well as for keeping tabs on the competition.

Each station is responsibile for using the Minitel to report daily the selling prices of at least six competitors. Called the Prices Observation System, the program eventually will be extended to all 650 Mobil stations in France, according to Alain Valadier, chief of the company's Telematics division.

Finally, BMW of France has expanded the services it offers its dealers throughout the country by installing Minitels in 225 BMW dealerships and repair centers. Dealers are able to order, in real-time and directly, spare parts from the BMW spare parts center in Strasbourg, 400 miles east of Paris. Spare parts ordered before 2 p.m. are delivered the following day.

— Cathryn Conroy

Professionals Create Paperless Book

Some ambitious members of CompuServe's Public Relations and Marketing Forum have created a book they hope will become the definitive work on the use of computers in public relations.

Conceived by David Colmans, vice president of Atlanta's Cohn & Wolfe public relations agency, the book offers practical, proven applications on how computers are used by public relations professionals around the country. With little emphasis on computer or communications theory, it is hoped the volume will inspire those who wonder what they can do with their computers.

Although Colmans has plans for eventual print publication, the book is being designed primarily to be available on CompuServe. "It is an evolving publication," he explains. "Readers will be able to communicate directly with the contributing authors through the PR and Marketing Forum's electronic message board or EasyPlex."

The book resides in the Public Relations and Marketing Forum's Data Library 8 and is named PRBOOK.

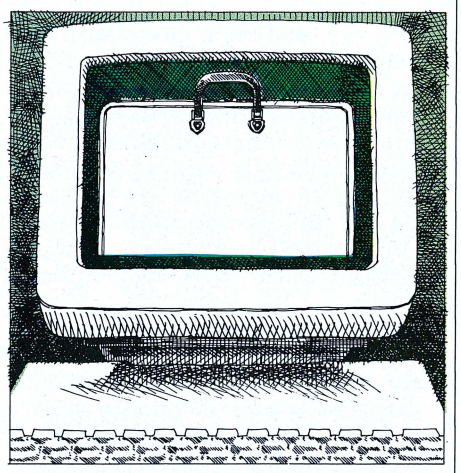
With an emphasis on microcomputer and laptop applications, the book offers advice on purchasing a first computer or expanding computer applications.

Other topics include electronically sending copy to typesetting; conducting online research; communicating electronically within an organization; developing an in-house desktop publishing operation and more.

Colmans believes the book may start a trend. "Paperless publishing is becoming more established, but it is usually in the form of magazines, such as *Online Today*."

The advantage of an electronic edition, he says, is that the staff can add new sections and chapters instantly, rather than waiting several years for a revised edition to be published. "It is our hope that the book will spawn ideas as people read it," Colmans says.

To access this interactive book, go to the forum by typing GO PRSIG at any prompt on the CompuServe Information Service. At the forum function prompt, type DL8.



New York Artists Computerize

New York City's Artists Space gallery has taken a bold step in the art world by computerizing its mammoth slide file of 2,500 artists. Until recently, museum curators, art dealers, gallery owners, collectors, art consultants, artists and educators looking for new talent had to search through the file slide by slide, a process that usually took about two days.

Now the artists are cataloged on an IBM PC with dBase III Plus. "We can give information by location, type of art, type of materials used, demographic areas, sex of the artist, age of the artist or style of art," said Lyda Pola, a sculptor who is managing the new computerized file, named Artists File.

The advantages are many. "Computerizing the file will make the artists more accessible in a variety of ways," Pola said. "By obtaining a number of demographic facts, Artists Space will be able to know, for example, age groups, ethnic representation and geographic locations of artists. This information will allow Artists Space to expand the file to under-served populations and regions of New York state. For example, we could find all female sculptors from Queens who work in metal or all artists who work in metal."

Future plans call for access to the file via modem as well as the creation of a nationwide electronic link to other gallery slide files.

Artists File is open to artists and the public free of charge and is supported by a grant from the New York City Department of Cultural Affairs.

Artists Space is located at 223 W. Broadway. Gallery hours are 11 a.m. to 6 p.m. Tuesday through Saturday.

WIN WIN & WIN MANUFACTU CONNEC

When hardware and software customer support goes online, manufacturers, users and the information service mutually benefit from the

By Holly G. Miller

New York's Helmsley Hotel may be the only palace where the queen stands guard, but Borland International's area on CompuServe is probably the only forum where the president holds court.

Enter the company-sponsored forum (GO BORLAND) and you will be greeted by CEO Philippe Kahn himself. Now *that's* friendly . . .

"We are expanding our customer support services on the forum, and look forward to hearing from you whenever you have questions or (eureka!) great ideas," writes Kahn in his welcoming message to forum visitors. And he means it.

"Long before the Borland Forum started, Philippe was on CompuServe talking to people about our products," recalls Larry Kraft, founder and primary administrator of the two-year-old forum. "Eventually, it was decided that we should start our own forum, just from the amount of traffic we were generating on the others."

Currently, the Borland Forum is one of nearly a dozen forums with a direct link to a hardware or software manufacturer. Although each sponsored forum varies slightly in the features it offers its members, all have official connections with corporate headquarters, and most of the forum administrators are full-time company employees well versed in the product lines. Their titles within the companies range from product support specialists, as they are known at Lotus; to support engineers, their description at Hewlett-Packard; to the software support team, the favored term at Ashton-Tate.

A winning combination

The purpose of the online efforts is to provide users with answers to their product-related questions. Not only can forum members leave questions for the forum administrators, but they can solicit input from other users, browse corporate press releases, read official announcements of new products, review the "top 10 questions and answers," use company-supplied patches and check the reference material in the technical support library. At Lotus (GO LOTUS), a visitor can scan a bibliography of journals containing articles about Lotus products and read a "feature of the month" spotlighting a Lotus innovation.

The idea of extending company assistance beyond traditional telephone hotlines and *slow* mail service is still new. Digital Research is credited with being the first to sponsor an online forum (GO DRFORUM), although other companies have quickly followed the leader in recognizing the concept as a winning situation for everyone — manufacturers, subscribers and the information services. Currently, CompuServe has several

RER TION

requests for company-sponsored forums.

"A trend seems to be developing," says Kathy Ennis, CompuServe product marketing specialist who oversees the forums with manufacturer connections. "Companies view this as a good way to do their customer support. They want to be seen as companies on the cutting edge, actively pursuing new ways to assist users."

Before launching its forum in September 1985, the Ashton-Tate Software Support Center considered operating a private electronic bulletin board that users could access by calling on a single phone line. Files could be examined and help information distributed.

"Then, we realized we could reach far more people on CompuServe," says Kent Irwin, administrator of the Ashton-Tate Forum (GO ASHTON, GO ASHFORUM) and project supervisor of telecommunications at A-T. "It is a new wave for us; I am optimistic about this being the future of support."

Efficient and economical

From the manufacturer's point of view, reaching more people translates into substantial cost savings. Rather than dedicating numerous technicians to staff expensive phone banks and answer the same questions over and over, the company can post a single response to an often-asked question on the forum message board or file it in the library for easy access. Subscribers avoid the frustration of calling toll-free numbers, where they get a busy signal or are put on hold to listen to Muzak while waiting their turns. Worse yet for customers are lengthy phone calls that are *not* toll-free.

"By the time I wait for a technician and then explain my problem, it is a 20-minute call from New Jersey to California. That can pay for as much as a half hour on CompuServe," says Brion Lutz, a CompuServe subscriber who is a frequent visitor to software forums.

An extra dimension of service

"People often are hesitant to use the phone," says Jeff Elpern, marketing vice president for Network Technologies, Ann Arbor, Mich. "When they *do* call, you help them one at a time. Someone might call from San Francisco to report this product doesn't work with that product; how can he fix it? You work through it and give an answer. Two hours later, you get a call from New York on the same issue. The next day Boston calls. Same question, same answer. With online support you can help a lot of people with less staff. Also, you get feedback that is not heard just by the person answering a hotline. It is all documented, captured and can be taken up the line to members of top management so they can see what is working in their products and what needs attention."

Essential to online success, of course, are high levels of traffic trekking in and out of the forums each day. Although the sponsored-forum concept is still new, the numbers are impressive and activity is on the upswing. Larry Kraft at Borland estimates an average of 150 new messages are posted daily in the forum.

"A few months ago it was more like 100," he says.

In spite of the activity level, forum administrators Irwin and Kraft and their staffs claim they usually can respond to members' questions within 24 hours. The majority of queries are easily answered, but when a tough one arises, the mechanism is in place to track the solution.

Less frustration, more help

"First I check with my co-workers," explains Kraft. "If necessary, I can contact the developers or the programmers who wrote the software. We also have a department here that is available strictly for the purpose of testing. With all our memory resident software, there is potential for conflicts because users are running our software with other software."

The burden of coming up with hundreds of answers a day is lightened considerably by other forum members who scan the message board and willingly share their expertise.

"You can get multiple answers that suggest multiple solutions to the same problems leading to more effective use of the products," says Brion Lutz. "The forums lessen the frustration that people feel when software or hardware doesn't work."

Some sponsored forums designate certain duties to specific administrators. For instance, in the Hewlett-Packard Forum (GO HP-1), questions related to the LaserJet printer family are directed to one administrator, while a second administrator fields all inquiries on Touchscreen II. Whether responses to questions are prepared by an individual or a committee, the 24-hour turnaround allows for any necessary checking of details.

"For the user, online support gives the other side (the original equipment manufacturer) time to do research and get back to the customer," says Dr. Rahul Dhesi, a Yale-educated professor of computer science at Ball State University.

Kent Irwin elaborates: "You can call up and talk with any one of 40 technicians in our department and each might have a slightly different view of the world. But online support enables us to present a more consolidated view of technical material. In other words, we can produce documents, edit them and make sure they represent the state of the software, and then put them online to make them available to several thousand people at the same time."

Verbal transactions still needed

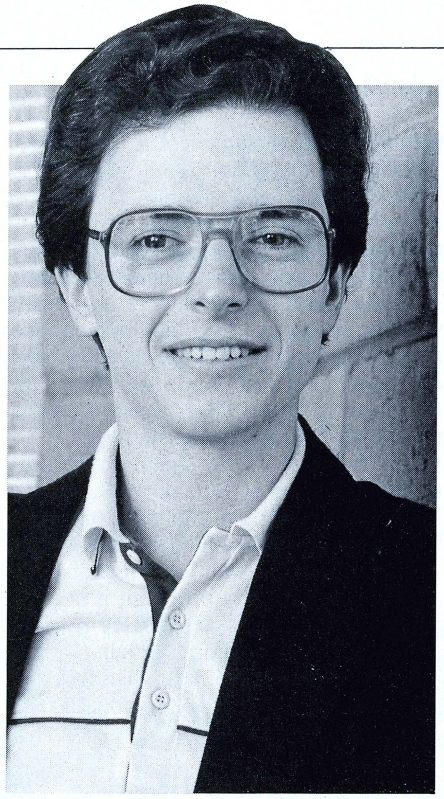
At least one industry analyst applauds the manufacturer forum concept but cautions that it may never completely replace telephone hotline support. Marilyn Block, director of research for the Naisbitt Group in Washington, D.C., questions whether or not some users can adequately communicate software/hardware-related problems

by tapping descriptions on a keyboard. She concedes, though, that the online support could be useful depending on the type of problem encountered and the user's degree of computer literacy.

"For some people who are not trained writers, it is difficult to put into print a description. When you talk with someone about a computer problem, you can say things like, 'It is doing a funny little swiggly thing and it makes a noise like this . . .' But how would you type that? At times, we really need verbal interaction."

However, forum administrators emphasize that the forums are not necessarily geared toward veteran users who speak and write fluent computerese. Novices are greeted and treated with enthusiasm and patience, even if their vocabulary is peppered with words like "swiggly."

"We have a number of high-level users such as professional programmers," admits Irwin. "On the other hand, we also have the kind of people who just use the product and don't care about the technical details. I think there is quite a bit of communion between the two. High-level users help the low-level users. And the low-level users tell everybody what we are aiming at because our programmers try to produce



Coming up with the answers: *Kraft*

software applications that can be used on an everyday basis."

Because of the variety of problems encountered and the degree of expertise exhibited, forum administrators acknowledge that the most effective user support program is multipronged, combining online forums with telephone and mail support. How each area of support interfaces with the others is explained online. For instance, the Digital Research Forum lists a toll-free telephone number for users to call to locate dealers or to request product information. The Borland Forum emphasizes that individual business matters, such as requesting an exchange or ordering an upgrade, should be handled via EasyPlex and addressed to the company's online customer service representative. The Macintosh Developers Forum (GO MACDEV) is quick to welcome nondevelopers and invites them to "lurk" and take advantage of databases, but warns that "MacDev is not the place for questions like, 'What is a loop?'."

A give-and-take atmosphere

While sponsored online forums cannot duplicate all the services of mail and telephone support, they can offer consumers several features available through no other means of support. Where else can users with similar interests and common equipment gather in conference and interact with software and hardware experts during discussions moderated by

Ties that Bind

Independent Forums Cultivate Camaraderie

Whenever Will Roberts' job takes him on the road, CompuServe's DEC PC Forum (GO DECPC) goes with him. He won't leave home without it.

"I travel with a laptop portable," he explained while en route from his homebase in San Francisco to Orlando. "I view the forum as a group of friends I can keep in touch with no matter where I am."

Camaraderie aside, the practical aspect of the forum environment drew Will online two years ago. He liked the market intelligence, the "bug reports" and the lively swap of information when he announced he was deliberating between a generic hard disk and a brand-name equivalent. He took the online advice, opted for the less expensive unit and saved $2,000 in the transaction. "Our company finally bought eight — a quick payback on the CompuServe connect time used," he recalls.

Like the majority of hardware/software forums, the DEC PC Forum is independently run, without official manufacturer input or staffing. Forum administrators are selected by CompuServe and have no official allegiance to the product manufacturers beyond knowledge of their service and respect for their wares.

"This forum has been my 'users group' for almost two years now," says DEC PC Forum Administrator Bill Leeman. "Owning a DEC PC, I have had little to no support on the local level. We often are kidded about being 'friends' with the Maytag repairman."

Other users, particularly members of forums dedicated to units no longer in production — IBM PCjr, for example — hardly feel forgotten or "obsolete" when they gather in conference, share lively discussions, or download programs designed especially for them by fellow proponents of the products.

"There are plenty of us out here and always will be," says one PCjr Forum member. "Fortunately, there are a lot of talented people working on these machines who probably know as much or nearly as much as the people who made them."

While independently operated forums vary in size and scope — the ever-growing IBM Users Network (GO IBMNET) recently expanded to five forums — most offer similar features: weekly conferences, active message boards and extensive data libraries. But it is the unexpected perks of forum affiliation that generate the most enthusiastic applause from members.

"Just to give you an idea, probably the most prominent public domain and commercial software authors in the business gravitate to the forums to visit and answer questions," says Don Watkins, IBM forum administrator who, in three years, has watched the daily forum activity increase from 20 messages to 600. "Not only do you have access to the thousands of excellent programs in the data libraries, but you also have access to the writers of them."

While IBM PC buffs acknowledge the

a telecommunications specialist? Where else but in a forum setting can users download patches and programs at no cost other than minimal connect charges? Where else might a user be recruited by a sponsoring manufacturer to be part of a product's development?

"The purpose of our forum is threefold," explain the administrators of the Microsoft Forum (GO MSOFT). "First, we attempt to provide a forum in which users can communicate more directly with Microsoft, to ask questions regarding products and receive information from us. Second, we provide a place for users to share information among themselves. Finally, through the interest log, we hope to use the forum to obtain beta testers for new Microsoft products."

The give-and-take atmosphere of the forums is appreciated by members who like to contribute to as well as take advantage of the flow of information. Borland President Philippe Kahn was not stroking egos when he wrote his message to forum visitors urging them to share "(eureka!) great ideas."

"There is nothing like the real world for shaking down a piece of software," says Kent Irwin. "Most of what we do in-house is idealized because we are testing ideal situations. Our customers give us some valuable feedback. Also, we have acquired a number of contracted testers after meeting them on CompuServe."

"Customers have a place where they can get up-to-date information. They can even keep an eye on us if they want to."

— Kent Irwin

If online support is still relatively new, companies that have tried it like it, and claim it is out of the "trial" stage.

"This is absolutely the wave of the future," says Network Technologies' Jeff Elpern.

"We are definitely committed to it," confirms Larry Kraft of Borland International.

"We are going to switch our emphasis internally from the phones to alternate methods of support," says Kent Irwin. "Customers have been reporting so far that they like having a place where they can feel in touch with the people who are working at Ashton-Tate. They have a place they can go and know they will get up-to-date information. They can even keep an eye on us if they want to!"

The two challenges currently facing online forum sponsors are pleasant ones: How best can they get the word out that the extra measure of support is available; and how can they most effectively expand their online presence. Possible solutions to these "problems" are solicited . . . and should be submitted via online message boards, of course.

Holly G. Miller is a free-lance writer and college professor from Anderson, Ind. Her CompuServe User ID number is 70007,2345.

value of having both manufacturer-sponsored and non-sponsored forums online, Watkins cites two pluses to overseeing a forum without a company connection. First, he and his four fellow forum administrators feel no reluctance to criticize IBM if they think the company deserves a gentle rap on the knuckles or a generous box to the ears. An employer-employee relationship might dictate more restraint, he suggests.

"Also, we don't suffer the wrath of people who are upset with the manufacturer. And a lot of people *do* get upset. They go online with an anonymous mask; nobody knows them, so they can vent their spleens. Since we are not affiliated with IBM, though, people treat us just like other people."

Dave Paul has filled leadership roles in manufacturer-sponsored and non-sponsored forums and sees definite benefits to both. In his former post as telecommunications manager for Commodore, his responsibilities included monitoring Commodore's activities on CompuServe. He also served as an assistant forum administrator of the independent Amiga Forum before joining the staff at CompuServe's corporate headquarters.

"In some cases, consumers may be a little wary of a manufacturer-sponsored environment because they are not sure they are going to get solid information," says Paul. "Sometimes that is a misconception because often they are going to get *better* information. Another misconception is that in a tightly controlled environment a consumer may feel he does not have the freedom to express a negative opinion. I think there tends to be a little more candor in an independent environment."

Although non-sponsored forums cannot tap the braintrust of corporate staffers, much expertise is available online within the forum membership. Will Roberts marvels at being on the receiving end of information simultaneously provided by programmers and data processing professionals located in Boston, Detroit, New York and Los Angeles.

"It has been interesting to watch two users in Honolulu and Berne, Switzerland, compare notes on a word-processing program although they are half a world apart," he says.

Perhaps the most colorful example of user collaboration, however, involved physical as well as mental support and required members of the same forum to be at the same place — Austin, Texas — at the same time. The incident, now dubbed the "Great Forum Showdown," tracks IBM Forum archivist Joan Friedman's tireless crusade to convince an Austin mail-order supplier that she was shipped a faulty disk. When she visited Austin on business, she was greeted by several Texas-based forum members who were familiar with her problem from their fruitless online efforts to solve it. Together they descended on the mail-order supplier to "lobby" for justice and replacements.

The delegation proved to be overwhelmingly convincing, according to Watkins. Every time a company technician tried to duck a demand, a forum member shot from the hip with a volley of evidence. In the end, Friedman emerged a satisfied customer.

Watkins laughs: "Yes, but it took a lynching party to get it done."

— HGM

Life of the Laptop

Thomas Lends Human Element to Portable Computer Hardware

By David Peyton

Dave Thomas has trouble convincing CompuServe users that he really is who he says he is when he meets them in person.

Thomas, the associate forum administrator of the Model 100 Forum, is the soul and character of that forum, according Wayne Day, chief administrator of TandyNet, the three-forum group on CompuServe devoted to Tandy products.

"Dave is one of the first forum administrators I met on CompuServe," Day says. "He's one of the true characters on the system, and I mean that in a positive sense. He adds a human touch to the Model 100 Forum and gives this medium something special by the personable way he handles things on the forum."

There is no doubt that Thomas, 53, is an online personality. His wit and wisdom are known beyond the boundaries of the Model 100 Forum.

"When he adds his two bits to a message thread, it brightens the conversation," one user says. "He knows just what to say and how to say it."

But, Thomas says, most people who correspond with him in the forums conjure a mental image that's not at all like him.

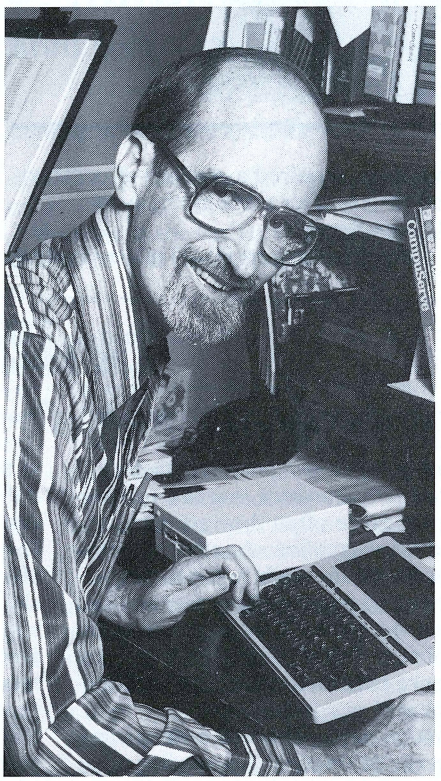
"I spoke to several users groups in California last summer. Invariably, when I would introduce myself, I'd get looks as if people were saying 'You're not Dave Thomas. Dave Thomas is jolly' — meaning short and kind of roly-poly. Well, I'm not short and roly-poly. In fact, I'm tall and thin, even cadaverous," Thomas says.

Thomas, of Timonium, Md., is familiar with disbelief. It is difficult for him to believe that less than four years ago, he had never touched a computer keyboard. A Navy veteran for 10 years and a teacher for 10 years, Thomas finally had to take a disability retirement in 1980 and found that he had nothing to occupy his time.

"I guess it all began for me in February 1983, when I was visiting my sister in Washington state. I picked up an advertising flyer from Radio Shack for a telephone answering machine and decided I might like to have one. I went to the local Radio Shack store and, instead of buying an answering machine, I bought a PC-1 — one of those little pocket computers."

A few months later he bought a PC-2, the upgrade to the PC-1. He had fallen in love with the concepts of computing and programming.

He was at a Radio Shack store when a salesman "told me how I could get something that could tie the PC-2 into a telephone system. I asked him why I would want to do that. He said I could get stock quotes and things like that online."



A true character: *Thomas*

A few months later, Radio Shack introduced the low-cost Model 100 portable computer with a built-in modem. Thomas bought one. And with his Model 100 came a CompuServe User ID number and free connect time.

After getting online for the first time in August 1983, it didn't take long for Thomas to get hooked.

"I still remember writing my first message on the old Model 100 Forum. It was a question, and after I wrote it, I sat there and waited for a long time, thinking that someone was going to answer it immediately — as if it were conference mode instead of a message board."

Thomas quickly learned the ropes on the rapidly growing forum, run at the time by John Mello, editor of Camden Communications' *Portable 100* magazine.

The number of files in the forum's databases was exploding, and Thomas took it upon himself to index the existing files and to update the index every week. His ability to keep tabs on the database files impressed Mello, who soon made Thomas an assistant forum administrator.

Through a series of sponsorship changes in the forum, Thomas remained an administrator and did what he does best — dealing with the many people who use the Model 100 Forum for information as well as friendly chatter.

It doesn't take long for newcomers to the forum to realize that Thomas has "friends" who help him in his duties: his computers and peripherals, which Thomas has given names, including his original Model 100, "Mortimer," so named because, "I asked it what its name was and that is what it told me."

His Model 1000, his full-sized computer, is named Candy Hawss Shackright, a mixture of Tandy, Radio Shack and the big lovable "Bonanza" character, Hoss Cartright.

It is not unusual for one of his machines to "take control" of a message and make comments on its own. The result is often a string of misspelled words in a message that forum members have come to recognize as the special mark of one of Thomas' machines.

Likewise, it is not unusual for even the most serious forum member to end a message to Thomas saying, "Tell Mortimer I said hello."

"This can be a sterile medium if you let it get that way," Thomas says. "I try my level best not to let that happen."

Just because the forum is devoted to tiny laptop computers doesn't mean the forum is tiny. At last count, there were more than 2,000 files in the forum data libraries. Of that number, nearly 800 are programs for the Tandy laptops as well as the NEC laptop computer.

"There's nothing else like it," Thomas says. "There's every kind of program and enough help to transform any novice into an expert. What's more, it is just plain fun."

David Peyton co-authored How to Get the Most Out of CompuServe. *His CompuServe User ID number is 76703,244.*

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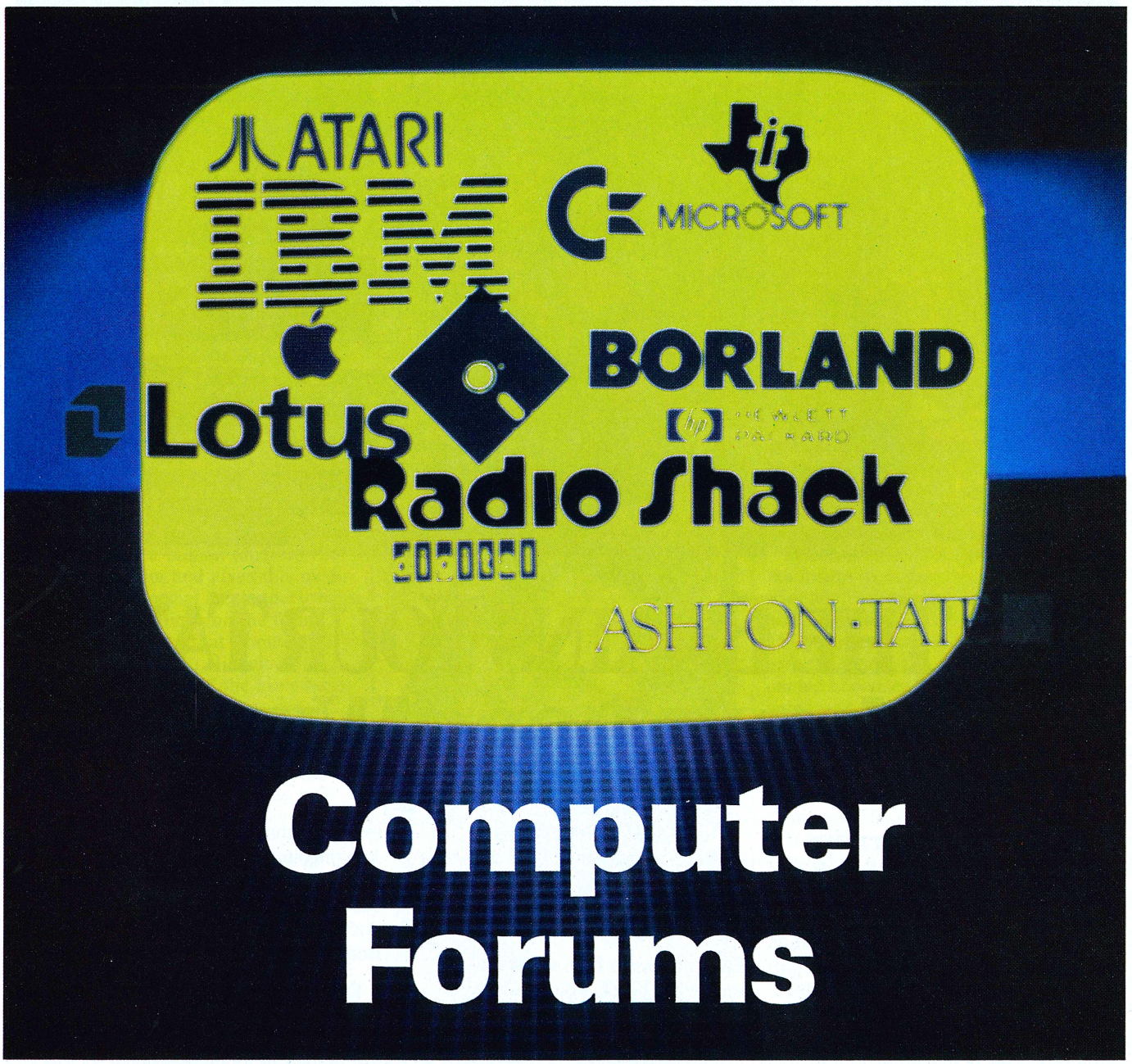

Computer Forums

Here's a listing of CompuServe's forums that are related to specific computer brands. To access any of these forums, type the GO command at any prompt on the CompuServe Information Service.

Ashton-Tate
The Ashton-Tate Forum provides users of Ashton-Tate products with support from the Ashton-Tate Support Center. Subscribers can also exchange information, ideas, and solutions with other Ashton-Tate users. In addition, sample programs and usage articles for each of Ashton-Tate's major products are available. **GO ASH**

Autodesk Forum
Autodesk is a computer-aided design (CAD) software forum. It offers information on Autodesk products, applications programs, usage tips, and product support. Autodesk provides a worldwide meeting place for AutoCAD users, dealers, peripheral manufacturers, applications developers, and Autodesk Staff. **GO ADESK**

Borland International
The Borland International Forum enables users of Borland software to exchange information and discuss programming with other users of Borland software. Included are sections on Turbo Pascal, Sidekick and Superkey. **GO BORLAND**

CP/M Forum
The CP/M Forum is dedicated to users of the CP/M 8-bit and 16-bit computer operating systems. Subscribers exchange information and discuss problems with other CP/M users. In addition to discussing CP/M itself, programs that run on CP/M computers such as word processors and database programs are discussed. **GO CPMSIG**

Digital Research Forum
Digital Research Forum is a professional forum for Digital Research end users and software developers. Topics cover application notes and patches, concurrent operating system information and graphics. In addition, end user support and information is available.
GO DRFORUM

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- *Select from three levels of HELP—Instructions, Guide, or detailed prompt information.*

Information you simply can't find anywhere else.

Use the Forum *Message Board* to send and receive electronic messages, and pose specific questions to Apple owners.

Join ongoing, real-time discussions in a Forum *Conference*—with Apple luminaries like Bill Atkinson, Doug Clapp, Dan Cochran, Jean-Louis Gassee, Mark Pelczarski, John Sculley and Steve Wozniak.

Search Forum *Data Libraries* for free software, user tips, transcripts of previous CompuServe online conferences and more.

Enjoy other useful services like:

- ***Popular Computer Magazines***—*electronic editions, for your reading pleasure. Including* ***Apples Online,*** *which reprints articles from leading user group newsletters nationwide and other Apple-related publications.*
- ***Other CompuServe Forums***—*supporting Jazz™ and other LOTUS® products. Microsoft®, MicroPro®, Borland International,® Ashton-Tate,® and other software.*

Participate in the fastest-growing interactive communication revolution since the telephone.

Thousands of other personal computer users just like you have found CompuServe's hardware and software forums to be an incredibly valuable resource. Type GO MAUG (the Micronetworked Apple Users Group) at any ! prompt and see what you've been missing.

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Amiga Forum
The Amiga Forum offers news, information, ideas and programs for Commodore's Amiga personal computer. Anyone is welcome to participate in the Amiga Forum — Amiga owners, software developers, prospective owners, and people who are just interested in watching the development of a new computer. **GO AMIGAFORUM**

Antic Online
Antic Online is the first online magazine exclusively for Atari computer users. Within this magazine you will find the latest Atari news, product surveys, letters to the editor, product reviews and access to the Worldwide Users Network. **GO ANTIC**

Apple II and III Forum
The MAUG Apple II and III Forum is devoted to people interested in the use of either of these computers. People from all over the world exchange hints and techniques, opinions on hardware and software, and viewpoints. **GO APPLE**

Apple User Groups Forum
This forum is co-sponsored with Apple Computer Inc. This is where Apple User Groups' ambassadors can have direct contact with Apple. Along with the officers, members of user groups can meet and exchange information and newsletters. Individuals can also use this forum to find the Apple User Group closest to them. **GO APPUG**

Apples Online
Apples Online is a comprehensive electronic magazine for Apple users. This magazine contains updated information on various Apple users groups, their newsletters and other Apple related magazines. Some of the users groups and magazines represented include the Berkeley Macintosh Users Group (BMUG), Washington Apple Pi (WAP), The Apple III Newsletter, The ICON Review and MacDeveloper Magazine. **GO AOL**

Atari Developers Forum
This third Atari forum supports the special interests related to the development of software and hardware for both the 8-bit and 16-bit lines of Atari computers. **GO ATARIDEV**

Atari 8-Bit Forum
The forum is not affiliated with Atari Corp. but is maintained by independent forum administrators and centers on the Atari 8-bit computer. The data libraries contain programs, text files, help information, product reviews and transcripts of previous conferences. **GO ATARI8**

Atari 16-Bit Forum
This forum is similar to the Atari 8-Bit Forum but pertains to the ST-series (16-bit) Atari computers. **GO ATARI16**

Color Computer Forum
The Color Computer Forum provides independent support for owners and operators of the TRS-80 Color Computer and related peripherals. Technical information, programming examples and a forum where CoCo owners can meet and discuss problems and desires are also included. **GO COCO**

Commodore Arts and Games Forum
Commodore Arts and Games Forum is an interactive electronic forum dedicated to the support and dissemination of news. It includes public domain games, graphics and music for the Commodore 8-bit line of computers. **GO CBMART**

Commodore Communications Forum
Commodore Communications Forum is an interactive electronic forum dedicated to the support, dissemination of news, discussions of information regarding software application programs, telecommunications and user oriented topics for the Commodore 8-bit line of computers. It includes various public domain software. **GO CBMCOM**

Commodore Programming Forum
The Commodore Programming Forum is an interactive forum for the dissemination and discussion of information regarding the programming and technical aspects of the C-128, C-64, PET, VIC-20 and B128 computers. It also includes various public domain programs to aid the programmer in the techniques of programming. **GO CBMPRG**

Commodore Service Forum
Commodore Service Forum is a forum for direct customer service with Commodore. There are no data libraries but there is conferencing and a message board. **GO CBM2000**

Computer Club Forum
The Computer Club Forum is a club intended for people whose computer interests are not covered by other forums. Currently, the forum attracts Timex Sinclair, Sinclair QL, Eagle IIE, Sanyo and Actrix portable computer users, although users of other computer systems are always welcome. **GO CLUB**

DEC PC Forum
The DEC PC Forum is intended for users of Digital Equipment Corp. (DEC) personal computers. Members can exchange information, ideas, public domain programs, and problems concerning DEC PCs with other members. **GO DECPC**

Epson Forum
Epson Forum provides Epson microcomputer/printer users with product information, technical assistance, public domain software and a nationwide communications network. Also included are a message exchange area, data libraries and forums that offer the Epson user valuable technical insight into the product's use. **GO EPSON**

Forth Forum/Creative Solutions
This forum is sponsored by Creative Solutions Inc., to support its Forth products and to answer all general Forth questions. **GO FORTH**

Heath Users Group (HUG)
Heath Users Group's purpose is to further the exchange of information about Heath/Zenith computers to enhance and maintain their usefulness. The forum encourages information from Heath/Zenith users regarding software/peripheral malfunctions. In addition, the field of robotics is discussed. **GO HEATHUSERS**

HP Series 100 Forum
The Hewlett-Packard PC Forum is one component of Hewlett-Packard/Online, an online information service to help you achieve the most value from Hewlett-Packard personal computers. It is supported by Hewlett-Packard, and you can converse online with HP support engineers. Free software is available. **GO HP**

IBM Communications Forum
This forum is devoted to the topic of telecommunications on the IBM Personal Computer and compatible computers. **GO IBMCOM**

IBM Hardware Forum
The major theme in the IBM Hardware Forum is the discussion of the various products available for the PC. The PC world changes rapidly and keeping up to date on new developments and sharing experiences with certain products make purchasing decisions easier. **GO IBMHW**

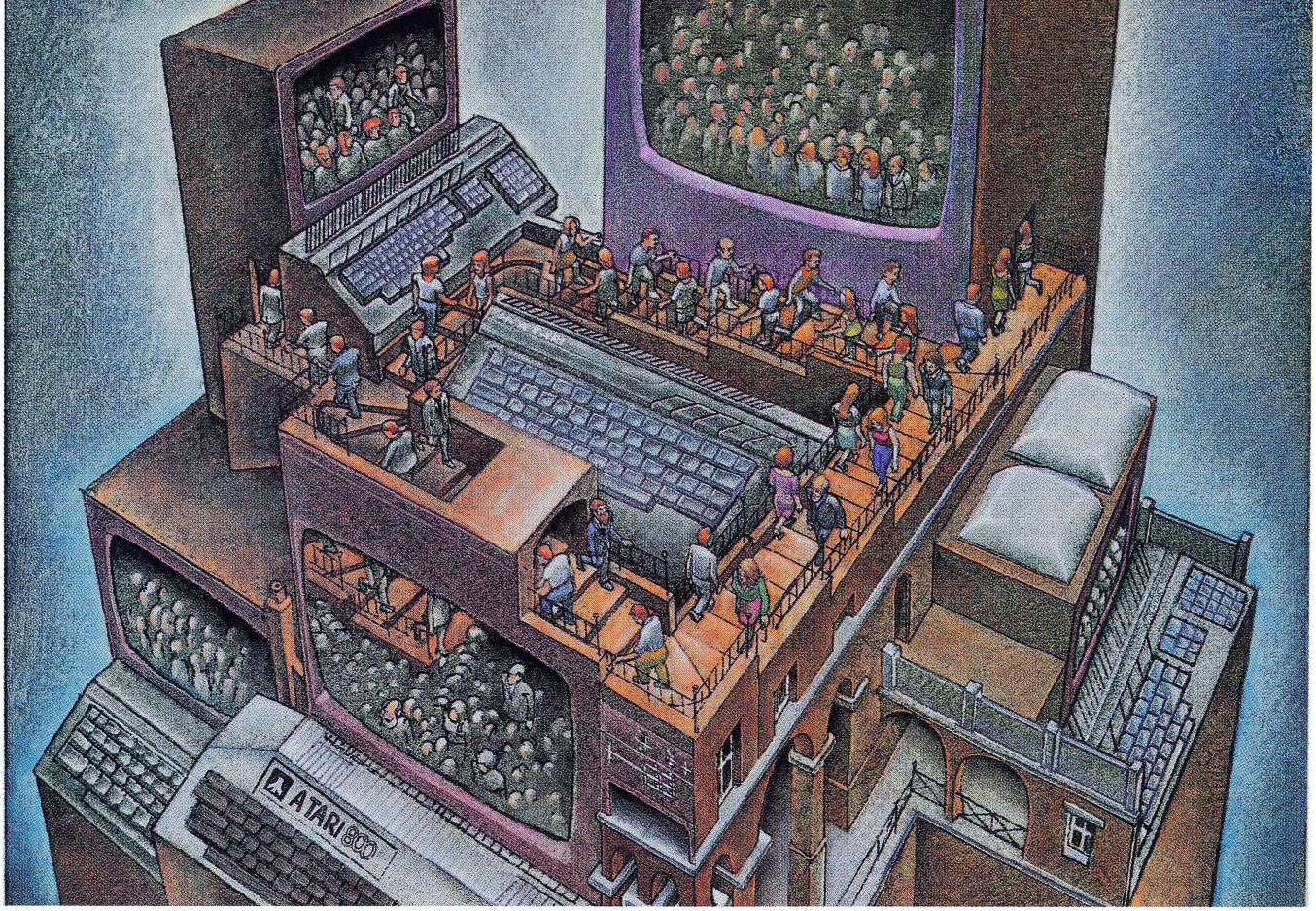
IBM Junior Forum
Specific needs of the PCjr are addressed in this forum. It includes information on public domain programs and information relating to common problems, solutions and experiences. **GO IBMJR**

IBM New Users Forum
If you are just getting started either in the world of communications or using the CompuServe forums, you might want to drop by this forum. **GO IBMNEW**

IBM Software Forum
This forum is devoted to the topic of software on the IBM Personal Computer and any and all other compatible computers. **GO IBMSW**

Jazz Users Forum
Like the 1-2-3 Users Forum and the Symphony Users Forum, registered members can read and leave messages to other members and to the Lotus Development Corp., upload and download applications software from the public domain data library, share interest with other 1-2-3 members and participate in online conferencing. **GO LOTUSJAZZ**

Kaypro Forum
Kaypro Forum enables Kaypro users to exchange information and assistance with other Kaypro users. There are 10 message areas and databases including information on products for Kaypro computers, hardware related files and Help files. **GO KAYPRO**



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Right at your fingertips in CompuServe's Atari® Forums.

Our Atari Forums involve thousands of Atari users worldwide. These forums show you just how easy and how much fun it is to get the most from your Atari computer.

The **Atari 8-bit Forum** provides the chance to talk with Atari enthusiasts on all levels. You'll learn all kinds of useful information from all kinds of interesting people. It's the leading national Atari Forum.

Devoted exclusively to users of the ST-series, the **Atari 16-bit Forum** provides programs, textfiles, assistance, product reviews, transcripts of online conferences and more.

The **Atari Developers Forum** is the authorized distribution area for all updates to Atari's registered software developer's kit for both the 8-bit and 16-bit Atari Computers. Members may access conferencing channels, data libraries, free programs and software.

Easy access to free software—including FREE uploads.

- *Download first-rate non-commercial user-supported software and utility programs.*
- *Upload personal files—software, application descriptions, articles, essays, news, etc., without connect charges.*

New features increase ease-of-use and add power.

- *Send EasyPlex messages to other subscribers without exiting the Forum.*
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LDOS/TRSDOS
The LDOS/TRSDOS Forum welcomes all users of the Radio Shack TRS-80 Models 1, 3, 4, 4P and 40, as well as users of "work-alike" computers such as the LOBO MAX-80. Topics discussed include BASIC, "C", Fortran, Ratfor, the Z-80 assembly language, the "hardware" of the TRS-80 product line and the LDOS 5.1 and TRSDOS6 operating systems. **GO LDOS**

Living Videotex Forum
The Living Videotex Forum supports all Living Videotex products including ThinkTank, Ready! and MORE. **GO LVTFORUM**

LOGO Forum
The Logo Forum uses a light-hearted approach to explore the use of the Logo computer language and technologies that influence our lives. Cartoon characters keep interest high.
GO LOGOFORUM

Lotus Symphony Users Forum
The Symphony Users Forum is similar to the 1-2-3 Users Forum except that the subject matter is geared to Lotus Symphony. **GO SYMPHONY**

Macintosh Developers Forum
The Macintosh Developers Forum is devoted to people interested in professional-level programming and hardware design on the Macintosh computer. **GO MACDEV**

Macintosh Users Forum
The Macintosh Users Forum is dedicated to users of the Macintosh line of computers, as well as the Macintosh's predecessor, the Lisa. Here you can find excellent public domain programs, stimulating conversation through the messaging systems, and conferences with notable software authors and high-level Apple executives.
GO MACUS

MicroPro Forum
The MicroPro Forum provides a medium for users of MicroPro software such as WordStar, WordStar 2000, InfoStar and CalcStar to interact with other MicroPro software users. **GO MICROPRO**

Microsearch
Microsearch is a searchable database of microcomputer information. It contains over 20,000 abstracts of both product reviews from 200 microcomputer publications and product literature from 4,500 manufacturers/software publishers. **GO MSH**

Microsoft Users Group
The Microsoft Users Group provides a forum where users can communicate with Microsoft and receive product information. **GO MSOFT**

Model 100/Portables Forum
Model 100/Portables Forum is intended for the users of the TRS-80 Model 100. Subscribers can share knowledge, experiences, programs and product information with other subscribers. There are 10 message board topics and databases that contain 1,000+ files of interest to Model 100 users. The data library and message board also support the Tandy 200 and NEC 8201A. **GO M100SIG**

1-2-3 Users Forum
The forum provides registered members with the ability to read and leave messages to other members and to Lotus Development Corp., upload and download applications software from the public domain libraries, share interests with other 1-2-3 members and participate in online conferences. **GO LOTUS123**

OS9 Operating System
The OS9 Operating System Forum is dedicated to users of the OS9 operating system. The forum contains programs, utilities, data files, hints, tips and discussions that pertain to OS9. **GO OS9**

Pascal (MUSUS)
Through MUSUS, members of USUS exchange information on a variety of topics, mostly centered on use of the UCSD Pascal, Apple Pascal and similar software systems. **GO MUSUS**

PDP-11 Forum
This forum encourages the exchange of software designed to run on Digital Equipment Corp.'s PDP/LSI computer systems and covers many languages used on PDPs including Macro, Fortran, Basic, Basic-Plus, "C", DIBOL & DBL, and Pascal. PDP-11 Users Group is designed to facilitate communication between users of the PDP-11, LSI-11 and PDP-10 series of computers. **GO PDP11**

Software Publishing Forum
The Software Publishing Forum is designed to get technical and product information to its members. The data libraries contain information on individual products as well as valuable templates to be used with PFS software. GO SPC for Software Publishing's online newsletter. **GO SPCFORUM**

Tandy Professional Forum
The Tandy Professional Forum offers Tandy computer users an avenue for exchange of information with other subscribers regarding the full line of Tandy computers. **GO TRS80PRO**

Tandy Users Network
This area contains the Tandy/Radio Shack specific resource for computer users. Forums included are the Color Computer Forum, the LDOS/TRSDOS Forum, the Model 100/Portables Forum and the Tandy Professional Forum. Also included is the Tandy Corp. Newsletter. **GO TANDYNET**

Texas Instruments Forum
The Texas Instruments Forum is an area for anyone interested in any model of Texas Instruments brand computers especially the TI-99/4A and TI Professional. Texas Instruments News (TINEWS) is a menu-driven, text area where complete forum instructions, help with tricky file transfers, the latest forum news and forum feedback can be found.
GO TIFORUM

VAX Forum
The VAX Forum enables users of Digital Equipment Corp.'s line of 32 bit computers to share information and ideas with other VAX users. A section of the forum is reserved for members who use the Unix operating system. **GO VAXSIG**

World of Lotus
The World of Lotus is sponsored and maintained by the Lotus Development Corp. to provide support to users of Lotus products and information about Lotus products and services. **GO LOTUS**

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Our Commodore Forums involve thousands of Commodore users worldwide. These Forums show you just how easy and fun it is to get the most from your Commodore Computer.

The Commodore **Communications Forum** provides the latest news on communications software and advice on how to effectively use your machine for online computing.

The Commodore **Programming Forum** supports programmers and developers of Commodore 8-bit computers.

The Commodore **Arts and Games Forum** is for all Commodore 8-bit computers. Compose or play music, create or retrieve colorful graphics, and download games software.

The Commodore **Amiga® Forum** is the national resource for all business and entertainment applications in the Amiga community.

Easy access to free software—including FREE uploads.

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CompuServe®

Linguists, Students Learn from Dialogues

Looking for a special verb case of J.R.R. Tolkien's "Quenya" language? How about job opportunities available to translators in Europe next spring? Whatever the interest in foreign languages may be, students, educators and other foreign language enthusiasts can meet and share information through the Foreign Language Forum.

The forum, online for about a year, is open to anyone interested in foreign languages, linguistics or literatures, according to Bette and Jerry Ervin, forum administrators.

"We thought foreign language professionals would be the first to start joining the forum," says Jerry, an associate professor of Russian at Ohio State University. "So far, however, the majority of members are people like myself who are interested in languages and computers." And that has proven to be both interesting and educational. The forum's message board discussions range from pragmatic questions on grammar to conversation about the phonetics of dead or arcane languages.

"We've expanded our subtopics to better reflect the needs of our members," says Jerry. The 10 subtopics now include English as a Second Language, Bilingual Education, Translators, Linguistics and Esperanto — a universal language based on the combination of linguistic patterns and logical processes. Jerry believes the forum has the potential for more growth.

"Foreign language education is a growing market," says Barbara Hoffman, CompuServe product manager. "New incentives for the expansion of foreign language education have come at the federal, state and local levels due to the demands on international commerce, national security and the educational community. With more than 100,000 foreign language education professionals and more than 3 million foreign language students at all grade levels," she adds, "the Foreign Language Forum is available to a largely untapped market."

The Ervins have planned events to reach foreign language enthusiasts both online and on the road. Jerry plans to attend the annual meeting of the American Council on the Teaching of Foreign Languages to be held in Dallas in late November. As part of Jerry's presentation, he intends to demonstrate the potential of online communications in the teaching and learning of foreign languages by having a conference with colleagues in Columbus, Ohio.

"Online communications opens many doors in foreign language education," says Jerry. "For instance, a teacher in Denver might find that his or her class enjoys corresponding with a class in Des Moines, either via messages or conferencing. By extension, a teacher of German in Denver could make contact with a teacher of English in Dusseldorf, Germany, and their two classes could exchange information."

A forum activity already underway is targeted at students who are interested in programming. Any student whose teacher is a member of the Ohio Foreign Language Association, can create and enter a computer-assisted foreign language learning program in this year's annual OFLA contest. Prizes of free CompuServe online connect time will be awarded for the three best entries. All entries must be received by Dec. 25, 1986.

"Through the contest," says Jerry, "we hope to stimulate experimentation and encourage foreign language students to develop computer expertise."

— Matthew Burns

Comp-u-store Offers Shopping Tips

Impulse buyers mean big business to any retailer, but educated consumers remain the mainstay of most stores.

Today consumers carefully research products before making major purchases. The biggest and most expensive item is not necessarily the best anymore. Comp-u-store OnLine is answering consumers' demands for product information with three informative Consumer Services.

Glossary of Terms

Product research can be useless if you don't understand the technological terms manufacturers use to promote their products. Comp-u-store OnLine has compiled a Glossary of Terms. In the Consumer Services Directory, this mini-encyclopedia gives brief, non-technical descriptions of products ranging from satellite television dishes to microwave ovens.

Ask the Expert

If you're looking for more specific product information, you can "Ask the Expert." Also found under Consumer Services, this informational service can supply answers to specific questions. Whether you're shopping for a television or dishwasher, Comp-u-store OnLine's team of experts will answer your questions.

Product Hotline

To keep you abreast of new technology and the resulting consumer products, the Product Hotline provides up-to-the-minute product information, as well as tidbits and trivia you may not find elsewhere. Even if you're just browsing the Comp-u-store OnLine database, the Product Hotline is useful. New products and technological advancements may convince you to replace that reliable but outdated appliance or entertainment center. If you've heard about a new product and want to learn more, Comp-u-store OnLine will research your request and post the information online.

Subscribers are welcome to make suggestions and contributions. Type GO CUS and select Consumer Services from Comp-u-store OnLine's Main Directory.

— Robin Mulligan

What's Going On???

If you want to know what's going on around CompuServe, check into *Online Today Electronic Edition*. Here you'll find constantly revised news for and about the CompuServe community. GO OLT from any prompt and choose "CompuServe Update" from the main menu.

ONLINE TODAY

USE THE BRAINS YOUR IBM WASN'T BORN WITH.

Right at your fingertips in CompuServe's IBM® Forums.

In the **IBM New Users Forum** you'll swap ideas with other new PC users, learn to use Forum features, and pose even basic questions to PC experts.

Our **IBM Junior Forum** gives PCjr® users a reliable source for tips on software, hardware, telecommunications, games and other interests.

In the **IBM Software Forum** you'll trade tips with other IBM PC and AT users on utility software, word processing, DOS and other operating systems.

Visit the **IBM Communications Forum** for advice on the features and compatibility of communications software and hardware, PC Bulletin Boards, micro-mainframe interfaces and more.

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Making Your Money Work for You

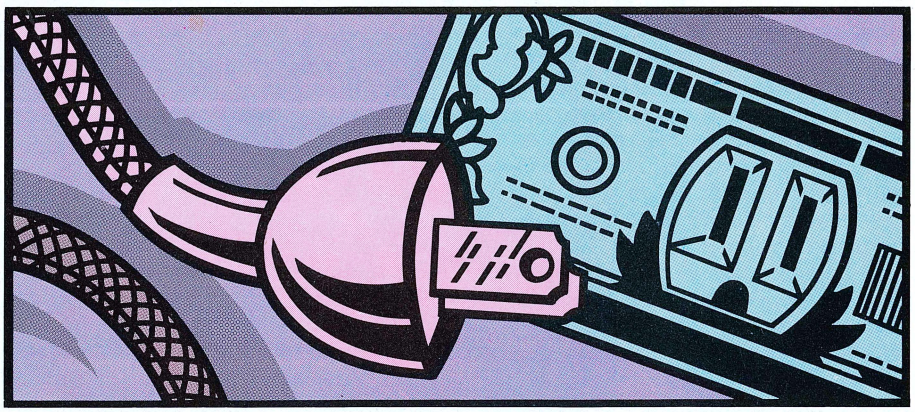
The Electronic Mall is not just a place to spend money — it also is a place to make money.

The Equitable, one of the largest money managers in the United States, offers online information on a range of financial products and services. You can request free information on many of the products featured in Equitable's complete portfolio, including annuities, life insurance, IRAs and Keoghs, and disability insurance. Also featured at Equitable is "Self Sketch," a fast, interactive way to find the right financial products for your lifestyle. Another interactive service is "Ask The On-Line Agent." Subscribers who want advice or further information about insurance, investments, tax shelters, IRAs or retirement planning can contact Equitable agent Bob Krum electronically. Krum will answer shoppers' financial questions overnight by EasyPlex. To discover Equitable's diverse portfolio of financial products and services, type GO EL at any prompt on the CompuServe Information Service.

EF Hutton offers information on Huttonline, an online service that turns your personal computer into an investment tool. Huttonline eliminates telephone tag with your broker and allows you 24-hour-a-day monitoring of your account, the stock market and the world of investments. At EF Hutton's online store, you also will find an explanation of the tax benefits of Huttonline. To request a free Huttonline application and additional information, type GO EF.

Max Ule Discount Brokerage, a division of Ingham, Becker and Co. Inc. and the first broker to have online trading, offers commission savings and efficient service. One of Max Ule's unique services is Tickerscreen, a service providing daily NYSE closing prices and allowing for direct-order entry of "buy" and "sell" orders. Another service, BAWD, allows you to settle brokerage transactions through a direct connection to your bank. At Max Ule's online location, you also can request information and free brochures on securities, zero coupon bonds, IRAs and the new Fund of The Month. To open an account or to obtain information, type GO MU.

At Beneficial National Bank you can apply for a VISA or MasterCard account with *no* annual fee. Beneficial's Mall store also features a short interactive quiz that lets you analyze your financial pattern to decide which credit card best suits your needs — a premium card



with an extensive line of credit or a "no frills" card with low-cost utility. For credit card applications or for information on IRAs and CDs, type GO BNB.

Colonial National Bank offers financial services by phone and mail 24 hours a day. Some of the products featured online include the Gold Master Card; Regular VISA and MasterCard; IRAs; CDs; money market accounts; and the Financial Freedom Loan, giving you credit up to $25,000. For applications and more information, type GO CN.

Citibank has recently opened online and offers many financial services, including online applications for the

APPAREL/ACCESSORIES

APC	Apparel Concepts
ATH	Athlete's Outfitters
BF	Birkenstock Footwear
CA	Casual Tee's
RF	International Fur Wholesalers
LNX	Lenox of Fairfield
MJ	Milkins Jewelers
BAG	Woodstock Leather Co.

AUTO

AMS	AMS/Oil Dealer
ATB	American Tire Buyers
BU	Buick
CHV	Chevy Showroom

BOOKS

BB	Bantam Books
DII	Christian Book Store
MH	McGraw-Hill Inc.
MER	Mercury House
WB	Waldenbooks

CAREER/SELF-HELP

TDG	Teledata*Guide
WS	Wayside Systems

COMPUTING

CPG	Compu-Game
CE	Computer Express
CL	Conroy-LaPointe
HTH	The Heath Company
DSK	1-800-Floppys
MM	Marymac Industries Inc.
MO	Misco Computer Supplies
SR	Sears, Roebuck & Co.
SDA	Software Discounters of America

FINANCIAL

BNB	Beneficial National Bank
CI	Citibank
CN	Colonial National Bank
EL	Equitable Life
MU	Max Ule Discount Brokerage
SLG	Sun Life Group

GIFTS/GOURMET

AK	Alaska Teleshopper
EX	Executive Engraver
FTH	Fifth Avenue Shopper
FFS	Florida Fruit Shippers
SDG	The Grower's Store
HH	Hobbit Hole/Wyandotte Wines
LM	Lincoln Manor Baskets
SEA	Lobster Market
NUT	Morrow's Nut House
SIM	Simon David
TG	Topgar Tobaccos
WK	Walter Knoll Florist

HOME/LEISURE

CC	Cosmic Concepts
GG	The Game Getters, Inc.
MAO	Music Alley Online
RR	Rin Robyn Pool & Patio
VCS	Vacuum Advance

MERCHANDISE/ELECTRONICS

AXM	American Express
EGS	Electronic Gadget Store
ELM	Electronics Mart
NCS	Nationwide Catalog Shopper
SAV	Savings Scan
SR	Sears, Roebuck & Co.
SUN	Sunland Camera
XDM	Xerox Direct Marketing

Citibank MasterCard, VISA or Preferred VISA credit cards. When you decide which Citibank card is right for you, you can apply electronically in about five minutes.

To apply for the card of your choice, type GO CI.

The Sun Life Insurance Company, in business since 1890 and currently operating in 48 states, offers online information on Certificates of Annuity. Learn how you can enjoy high current interest rates, tax deferral, and guaranteed safety and security for your investment. Sun Life will demonstrate the advantages of tax deferral for you by preparing a free, no-obligation financial comparison of the Certificate of Annuity and the Certificate of Deposit. To request your personalized analysis, type GO SLG.

To access The Electronic Mall, type GO MALL.

ONLINE SERVICES

EF	EF Hutton
GLO	Globalink
NN	NewsNet
OA	Official Airline Guides
VL	Videolog Electronics

PERIODICALS

CW	CW Communications
DJ	Dow Jones & Co.
ME	EBSCO Magazine Entree
ECO	ECOPRESS
US	USA TODAY

PREMIUM MERCHANTS

BL	Bloomingdale's By Mail
NM	Neiman-Marcus
TIF	Tiffany & Co.

RECORDS/MOVIES

CF	CBS/Fox Video
EMC	Express Music CDs
MV	Magic Castle Video
MUS	Music Video
RC	RCA Direct Marketing
RW	Record World

SPORTS/HEALTH

BP	Barracuda Sports Products
BS	Berry Scuba Co.
HF	Carolina Health & Fitness
VM	VitaMenagerie

TRAVEL

AA	American Airlines
AF	Air France
AT	Ameropa Travel
WL	Worldwide Property Guide

Exotic Excursions

Subscribers Find Adventure in Travel

While working on his doctoral degree in literature at Stanford University, Lee Foster decided to leave the academic world and, instead of writing books about books, he would write about life. The life he writes about is adventurous and romantic, and can be found in a new CompuServe service, Adventures in Travel (GO AIT).

Adventures in Travel whisks the armchair traveler around the world, as well as assisting those who plan to explore destinations firsthand. Every two weeks, Foster publishes a new article — on cities, countries, specific sights, or travel issues. Previous articles are kept on file, and Foster anticipates that within five years he will have at least one article on every country in the world.

Recent articles have included "Germany's Romantic Road Carries You to Roman Times" and "Mexico's Cozumel Island and State of Quintana Roo."

"Only some of my readers will actually go to the places I write about, but everyone can delight in the travel experience by reading the pieces," says Foster, who travels one week a month. All articles are written by professional travel writers and are based on firsthand knowledge.

"As a travel writer, I go into the world and define it. I try to convey the soul of the place, much as a novelist would," he explains.

The author of two novels (*Just 25 Cents and Three Wheaties Box Tops* and *Message of April Fools*) and several nonfiction books, Foster is excited about the potential of electronic publishing in the travel field. His first electronic book, *Lee Foster's West Coast Guide: California*, is available on disk from Pinpoint Publishing. He plans to create an entire electronic series on all the Western states.

Foster carefully selects each topic, trying to anticipate where people would like to travel. In late spring, he featured New York City's Statue of Liberty celebration; in the fall, articles on skiing and winter resorts will appear.

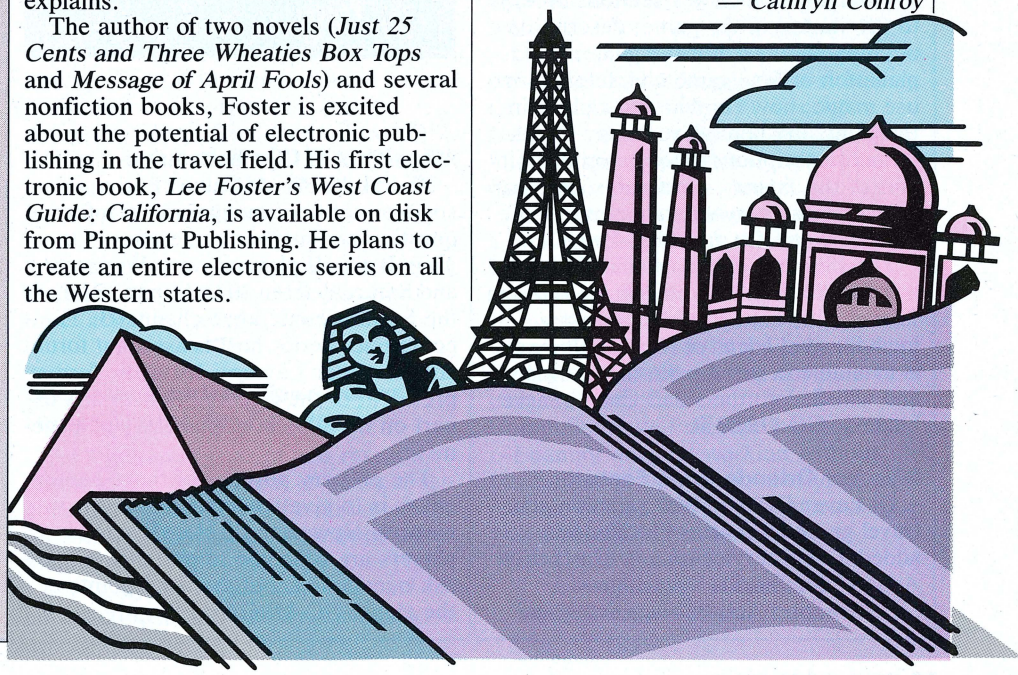
He admits the recent terrorist activities in the Mediterranean and Europe have affected his topic selection, but he still plans to cover foreign locations. "Travelers are victims of terrorism in that their freedom of movement and that life-enhancing experience of travel have been restricted. There are important long-term losses because people won't know as much about the world.

"To paraphrase Mark Twain, 'Travel is fatal to bigotry, small-mindedness and prejudice.' Unfortunately, terrorism will eliminate many of the benefits of travel," he laments.

Despite world problems, Foster is a travel enthusiast. He says he is often accompanied by his Dutch wife, Anke, and their three children, Bart, Karin and Paul. Family trips add a new perspective, says Foster. "Seeing their reaction is an important contribution to my writing."

A member of the American Society of Travel Writers, Foster also produces CompuServe's West Coast Travel (GO WCT), featuring extensive travel information on the Western states.

— Cathryn Conroy



NEW PRODUCTS

EPIE Database Reorganizes

The Educational Products Information Exchange Online Services on CompuServe have reorganized. EPIE Online consists of the TESS educational software database (with surcharge), the EPIE Forum and descriptions of the various EPIE services.

The searchable database of educational software has changed status; it is now available only on a subscription basis. The EPIE Forum, however, still is open to all CompuServe users interested in education.

To access EPIE Online, type GO EPE at any prompt on the CompuServe Information Service. The command GO EPI will take you directly to the TESS educational software database and will route non-database subscribers to an online subscription form. GO EPIEFORUM

Island of Kesmai Manual Offered

Kesmai Corp. and CompuServe have come to the rescue of all *Island of Kesmai* game players who need a guide of some sort — a how-to book to help them survive the Island's many challenges and help them venture around it. The *Island of Kesmai* manual is now available for ordering from CompuServe.

The manual includes sections on how to get started in the game; descriptions of commands used in the game; an explanation of how game characters may use magic; how combat takes place in the game and how players may handle it; and descriptions of common inhabitants of the *Island* — creatures and characters whose very existence makes life more difficult for any *Island* visitor.

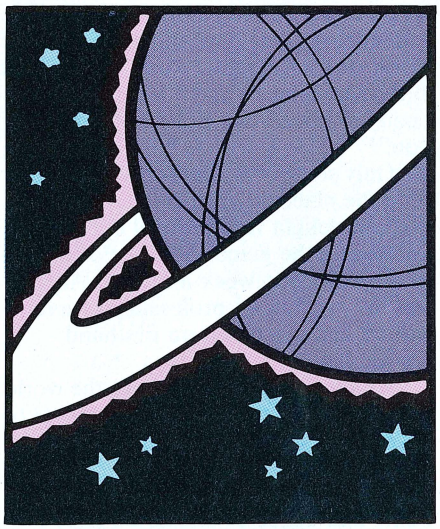
The 186-page manual also includes numerous illustrations and two maps of the *Island*. This handy publication — a must for avid *Island of Kesmai* players — is available in a 6- by 8½-inch format and will fit into the small CompuServe binders. GO ORDER

Discover Orlando Adds Feature

Discover Orlando, the vacation and travel guide to central Florida, has added a new service called "Attraction Action" for Florida vacationers.

"Attraction Action" is a ticket and passport to more than 50 of Florida's most exciting attractions and provides substantial savings to its holder. "Attraction Action" is only $16.95 and provides the following: one full-price admission to one of several platinum attractions such as Sea World, Busch Gardens and Silver Springs; a 50 percent discount on the regular adult admission to places such as Circus World, Church Street Station and Marineland; unique savings at other entertainment attractions such as one-day cruises at SeaEscape, dinner theatre at King Henry's Feast and nighttime entertainment.

You may visit the half-price attractions as often as you like, so the amount of savings is unlimited. You can order "Attraction Action" online. For more information on it and the many other attractions participating in this program. GO ORLANDO



MegaWars III COs Scheduled

The Multi-Player Games Forum is sponsoring a continuing series of informal question-and-answer conferences for *MegaWars III* players every Wednesday and Saturday from 10 to 11 p.m. EDT on the forum's conference channel 3. The conference series host is assistant forum administrator Lavrenti Kutuzov, former president of the Imperial Senate and expert on the subject of planetary management.

The primary purpose of these conferences is to give advice and assist new players. However, all *MegaWars III* players are welcome to participate and ask questions about the finer points of the game. GO MPGAMES

New Travel Service Debuts

What's New in Travel is a new service designed to keep you up-to-date on the latest travel service offerings available on the CompuServe Information Service.

You will find information about a new service called Rocky Mountain Connections for vacationers and travelers and new features for travelers and businesspeople in the American Express ADVANCE service.

What's New in Travel will be updated every two weeks to keep you attuned to what's happening in travel. GO WNT

OMNI Online Now Available

OMNI, the magazine you rely on for reports on scientific inquiry and the latest in technology, now is available to CompuServe subscribers. OMNI Online is an electronic gathering place for *OMNI* editors, guests and subscribers. You'll be able to read features and columns up to one week before the current issue reaches the newsstand.

OMNI Online invites its print readers to speak out and be "heard" through the electronic version of *OMNI* magazine. GO OMNI

AAE Makes Third 1986 Update

The Academic American Encyclopedia's third update for 1986 is now available on the CompuServe Information Service. With its quarterly update policy, Grolier's AAE offers CompuServe users the most current encyclopedic information available.

Let the AAE help you with research projects for speeches, business reports, school work, background information, trivia stumpers and more.

To look at the type of information you will find in the AAE, access the new AAE Demo off main AAE menu. GO AAE

Color Mail Adds Capabilities

Hallmark Color Mail, the Electronic Greeting Card Factory, has added five titles to its greeting libraries. They are "Sportsters," with caricatures of professional athletes; "Prehistorix," with

zany images of primitive cave life; "Animateables," with zippy, quick-moving characters and objects; "Tunes," with favorite new and old ditties; and "Jotters," a collection of designer stationery for quick, colorful notes.

As always, CompuServe subscribers may download new Color Mail Libraries directly to a storage disk. All you need is an original Color Mail disk and the urge to communicate in color, motion and music. For information on how to obtain a Color Mail disk. GO COLORMAIL

Check Citilog Before Traveling

When you travel this summer, be sure to check the National Tourism Citilog before leaving. Get the most enjoyment from your stay by visiting museums, festivals, concerts, sporting events and other special activities planned for the summer.

You can find this updated information in the National Tourism Citilog for 16 major cities, including New Orleans; Houston; Philadelphia; Vancouver, B.C.; and Chicago. Use the National Tourism Citilog to be sure you don't miss out on events and attractions.
GO CITIES

Online Rates Area Revised

The online transaction and premium program rates area has been revised and expanded to include all the transaction and premium program rates on the CompuServe Information Service.

You now can find the most up-to-date rate information all in one place. A new 11-option menu allows you to quickly and easily locate new transaction and premium program rates, including rates for CompuServe services such as Stock Market, Securities (including MicroQuote), Travel, Aviation, Games and Entertainment, and Education.
GO TRANSACTION

ABC Hotel Guide Expands

The ABC Worldwide Hotel Guide now contains more than 28,000 hotel listings and 7,000 expanded listings. You can search for hotels around the world by location, price range, hotel name, hotel chain, and 26 different types of services and amenities.

You will receive a select list of hotels containing the hotel name, address, telephone number, rates, credit cards accepted, and services and facilities provided.

In addition, now more than 7,000 hotel listings include expanded descriptions about the hotel. GO HOTELS

Answers from Customer Service

Q: As a new CompuServe subscriber, I would like some information on the services provided by the hardware and software forums.

A: The hardware and software forums on CompuServe have been described as "neighborhoods" where subscribers can meet and exchange information, as well as machine-specific programs. You can share ideas with people who use your particular computer and are willing to provide technical support. Led by the forum administrator, the forums offer an atmosphere whereby the novice or the expert can become an integral part of the group.

The hardware forums on CompuServe offer a variety of features to help you use your computer. You can find technical assistance by leaving messages on the forum message board or by entering conference mode in the forum and asking a question. The hardware forums also provide public domain software, including both textfiles and programs available for downloading.

Q: I've noticed that you have many computer forums online, but I do not see one for my computer. Is there a place where I can go for hardware and software support?

A: CompuServe is continually expanding its services. To find out if a forum has been added for your computer, at any prompt you can type FIND, followed by the name of your computer. If your computer does not have a designated forum and is compatible with a brand offered on CompuServe, you can check the forum for the possibility of a subtopic on compatibles.

If you are not able to locate your computer in any forum, you can type GO CLUB at any prompt to access the Computer Club Forum, a meeting place for subscribers with microcomputers without forums. You can access the Computer Club Forum by typing GO CLUB at any prompt.

After joining this forum, you can enter the Data Library 0 and type BRO WHOSWH.ERE for a file listing computers and forums supporting the brands.

Q: Will a hardware forum administrator respond to a question I've left on the message board?

A: Most forum administrators will append an answer to your question on the message board. You usually should wait 24 to 48 hours and then select to read messages in the forum. Select (RM) to read messages marked for you. This will pull up any messages that someone has marked for your User ID number and should provide you with the answer.

Gift of Time

Online Today offers subscribers the chance to write a 200-word essay on how they use CompuServe's Information Service.

Your essay should be typed double-spaced. Send it to *Online Today*, CompuServe Incorporated, 5000 Arlington Centre Blvd., P.O. Box 20212, Columbus, OH 43220, or by an Email message to 70003,1661. Please include your full name, address and User ID number.

If we use your column, you will receive 10 hours of standard service connect time (a $60 value) and a byline.

Graduate Student Researches Topics Online for Faculty

As a graduate student and research fellow in the department of political science and public affairs, I am responsible for meeting the research needs of the faculty.

Since my job requires me to locate accurate information quickly, CompuServe has proven to be an invaluable asset. The Executive News Service and IQuest are both excellent, fast, economical sources of information on topics relevant to public administration and political science.

One faculty member is preparing a paper in the field of organizational behavior involving NASA. The Executive News Service has been especially helpful in clipping daily stories related to the Challenger disaster.

Another application of CompuServe is a bibliographic search service called LitSearch. Through this arrangement, graduate students are allowed a free 17.5-minute online search on CompuServe or The Knowledge Index each quarter. Considering our current usage of both services, I believe CompuServe will receive the most use.

I cannot imagine working without CompuServe. Information retrieval services on CompuServe have improved the way I conduct literature searches.

David Coursey
University of Alabama
Birmingham, Ala.

Planning Ahead

All my life, I have yearned for a roll-top desk. Since my high school days, I have made do with a desk my parents bought me — old, workable, sturdy and ultimately ugly. Finally, I found the desk of my dreams: a full-size roll-top, prewired for computer and modem, with a built-in clock to help me stick to deadlines. I adored it. I bought it and ordered it shipped to my home.

When it arrived, it was too big to fit through the door to my study. I ended up moving the rest of the study to a room big enough to house my beloved desk. That is a lot of work I could have avoided with just a little planning ahead.

Beginners to the world of telecomputing tend to waste time and money just figuring out what they want to do online. That is inevitable, and a bit of experimentation, even at an hourly rate, eventually pays off. But there is no reason not to do as much experimenting as possible for the least amount of cash.

The best way to save online dollars is to do as much work as you can before actually logging on to the service. Doing your telecomputing work without telecomputing may sound like a contradiction in terms, but it is quite easy.

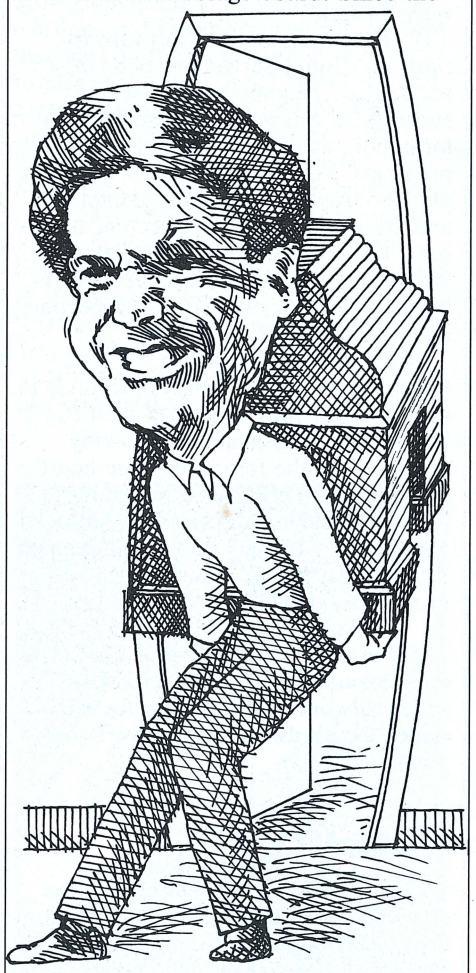
First, keep your CompuServe Information Service documentation handy, and refer to it often. Looking for a particular service? It is listed for you, along with the GO page number that lets you avoid endless tiers of menus. It is a long list, because CompuServe is a large, constantly growing, network.

Is the service you want listed? Probably. There are a few streams CompuServe has yet to ford, but not many. If you know where you are going before logging on to the network, you can save all the time you would have spent trying to find your way around.

Second, do as much of your writing as possible before going online. If you spend time on the forums, it is often faster to come online, read the messages you find interesting, store them to a diskette and answer them later. With a good word processor, you can write your messages before logging on to the network, and store them in a format that will transmit easily to one of the text editors available in the forum.

To prewrite your messages, you need a word processor that will store plain textfiles, completely lacking control characters. Do not try to transmit printer-ready files! CompuServe's editors will not know what to make of invisibly embedded control characters. You cannot see them, but the network can.

You also need a telecommunications package that will transmit, or "send," those files as text. You do not upload into a forum message board. Since the



forums were designed as "real-time" communication areas, the forum administrators expect straight typing, not protocol-ridden uploads.

For your message to be readable online, you will need to insert a Carriage Return after the 78th character of each line before you transmit it.

You can even set up your messages so that they will handle all your storage commands for you. Suppose you want to store a message to the forum administrator. You would start your message with the "Leave," "To" and "Subject" fields, and end it with the storage command. Your message, then, would begin like this:

L
Sysop
Matters of note

Then insert the text, ending with "/exit" if you are in the Filge editor, or two carriage returns and "S0" if you have chosen the SED editor.

If you are replying to another message, the process is even simpler. Just begin with "re#" (using the number of the message to which you are replying), insert the text, and enter the closing and storage command.

In either case, all you need do is start at the "Function:" prompt, and send your textfile. Your word processor, telecommunications software and CompuServe will handle the rest. Working together, they will enter your message far faster than you could have typed it yourself, resulting in a substantial savings of online time.

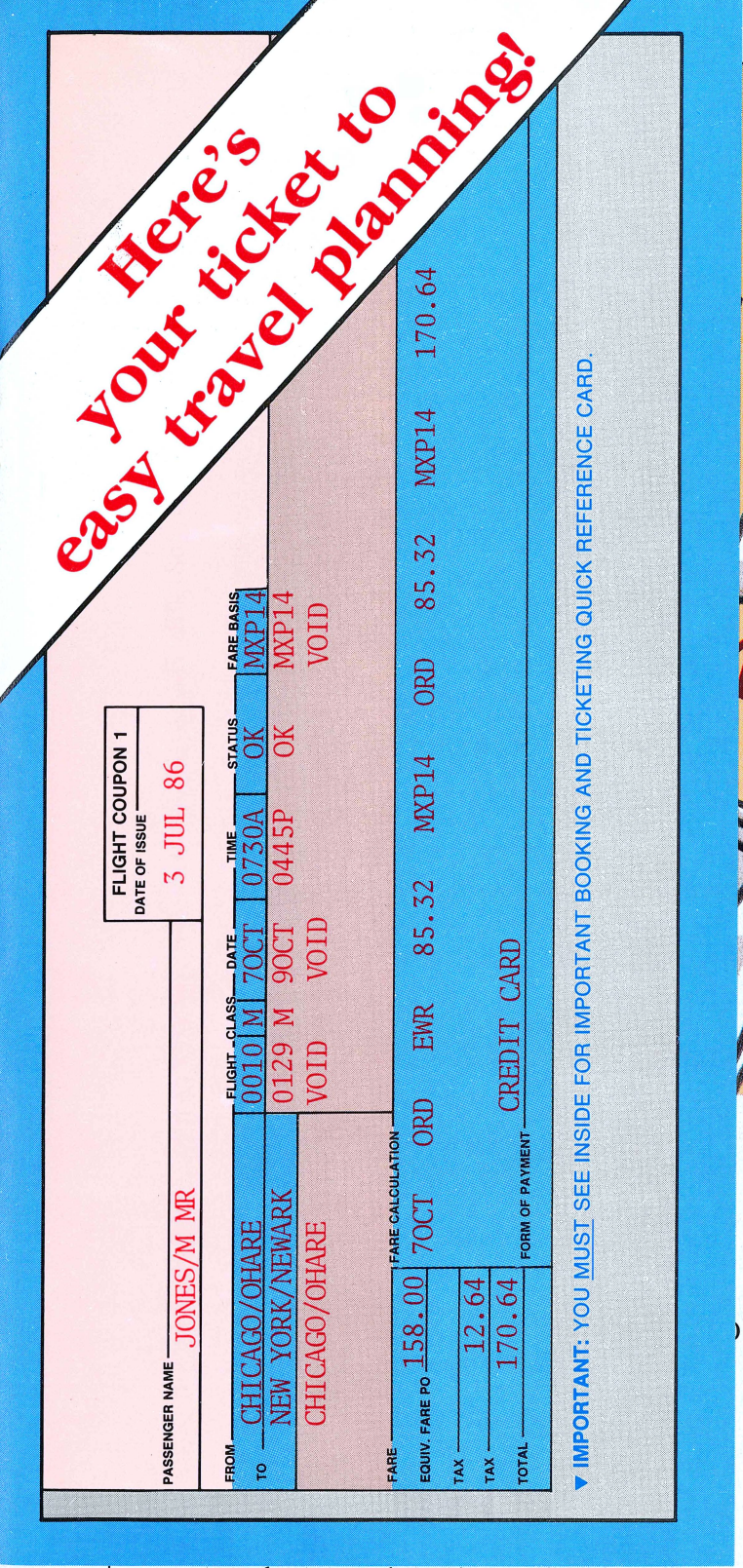
Before you run out to buy a new batch of software, though, look over the word processor and telecommunications packages you already have. Quite often, you will find your software can do a number of things of which you were unaware. Almost all word processing software allows you to store files as text only. Most telecommunications packages include a simple "send" option in addition to their various uploading protocols. Those software programmers are well aware of the need for simple answers. Read all your documentation carefully. Have you been missing something?

Nor are your savings limited to these techniques. Have you considered *when* you go online? A lot of that work you do during the prime-rate hours of 8 a.m. to 6 p.m. might better be done in the evening, when CompuServe costs less to use.

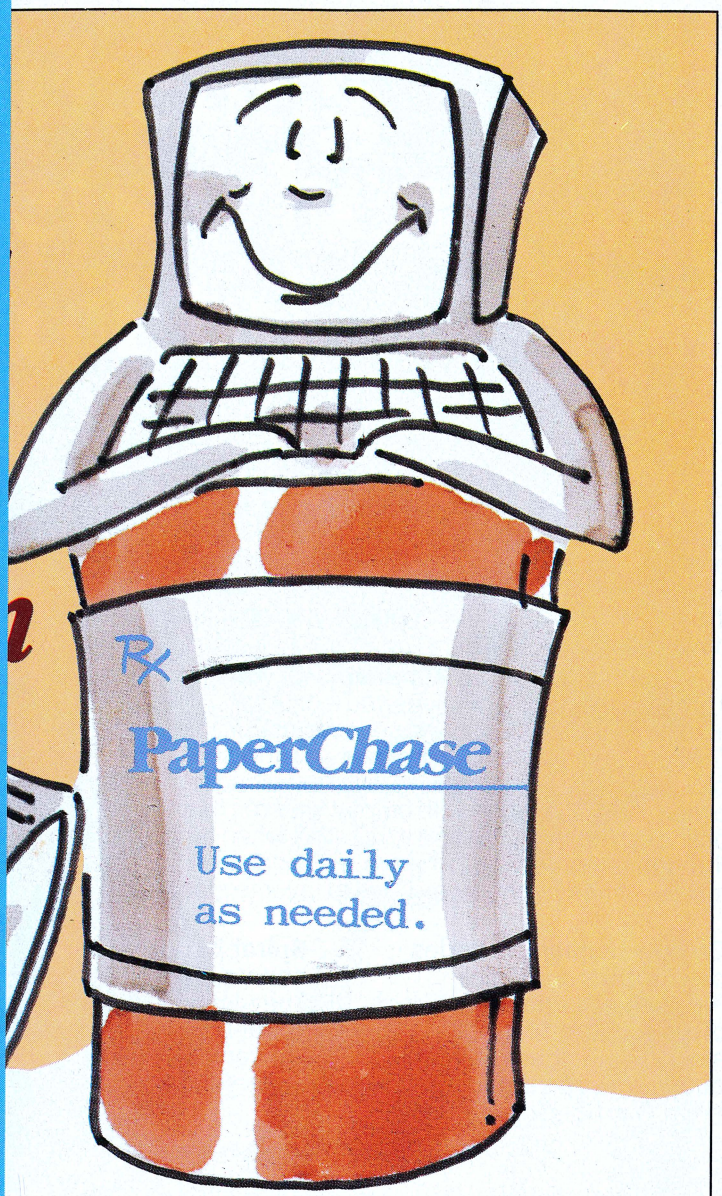
Similarly, if you have a 1200-baud modem, it might be cheaper to use the higher speed for downloading files and capturing text. At 1200 baud, data flows into your computer four times faster than at 300 baud, but the cost is considerably less than four times as much. Not only does CompuServe charge you little more than twice the 300-baud rate when your computer is working four times as hard, but that 25-cent telephone company surcharge is the same regardless of your modem speed.

A little preplanning is always worth your while. If I would have measured that beautiful roll-top desk before buying it, I might have bought another model — or, at the very least, have saved the time I spent trying to shove it through a door too small to give it passage. You, too, can save your networking dollars with just a little forethought. Before switching on your modem, why not plan ahead?

Alex Krislov is a free-lance writer from Cleveland.



Medicine's index to biomedical literature.



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Planning Ahead

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LaTonya V. Thomas, Richmond, California

"My business periodically requires that I travel to Dallas. I decided to check the OAG ELECTRONIC EDITION. I not only found an airline with fares over 50% less than I had been paying, I could now land only blocks from my destination, saving me over $40 in cab fare and several hours of my time.
Mr. James Haupt, Pearcy, Arkansas

Now it's your turn to ask the questions . . .

? **What if I want to find out if there are seats available on a certain flight . . . without actually booking it?**

? **How do I start the booking process?**
It's easy to get started! You just enter "B" and the line number of the flight you want from any schedule display. The OAG ELECTRONIC EDITION will prompt you for information such as how many people are flying . . . and then will show you a display of the available fares on the flight you choose. Then you can book your flight and choose your method of ticketing—in seconds—to complete the booking process.

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There are many options open to you—depending on the airline and flight you select. You can, of course, choose to have your tickets delivered by Thomas Cook Travel, USA . . . OAG's travel agency and the only travel agency currently authorized to ticket ELECTRONIC EDITION reservations.
Or, you may be able to take advantage of other options: ticketing by mail, airport pick-up, city ticket office pick-up or self-ticketing (if

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From any schedule display, all you do is enter "B" and the line number of the flight you're interested in. The OAG ELECTRONIC EDITION will ask you for the number of passengers and the type of trip you're planning . . . and then will instantly let you know if there are any seats left for each fare on the flight.

The next step is up to you. You can go ahead and book your flight. Or, if you prefer, you can simply enter a "C" command to end your booking session . . . and return to the schedules display to view other flight alternatives.

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Why does it make sense for me to book an airline reservation through the OAG ELECTRONIC EDITION?

Because your time is valuable! With the OAG ELECTRONIC EDITION, you can find the flight that best suits your schedule . . . select the fare that's best for you . . . and then book the flight yourself and arrange for ticketing right on-line . . . in minutes! Without spending time on the phone! Without waiting in long airport lines! Without being interrupted by travel agent call-backs. So you're in control of the entire travel planning process . . . every step of the way!

your company has its own on-site ticketing capability and ticket stock).

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Thomas Cook Travel is a partner in travel with Official Airline Guides . . . and both Thomas Cook Travel and OAG are companies of the Dun & Bradstreet Corporation. With 53 offices throughout the United States—and a long standing reputation for excellence—Thomas Cook Travel USA offers an easy and convenient way to obtain your ticket . . . without additional cost to you.

Why should I choose OAG over other electronic travel sources?

You simply can't afford to settle for anything less than the best. And the OAG ELECTRONIC EDITION is the most complete, unbiased, up-to-date electronic travel system for the business or pleasure traveler.

Unlike other electronic travel systems, the OAG ELECTRONIC EDITION gives you all your options in an unbiased format . . . earliest to latest flights, least to most expensive fares. Nothing is hidden from your view!

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OAG Electronic Edition Airline Booking and Ticketing on CompuServe

READY TO BEGIN?

Type GO OAG RETURN and select accessing OAG EE.
When you're ready to exit, simply type /Q.
DON'T FORGET TO PRESS RETURN AFTER EACH ENTRY!

FIND OUT THE AVAILABILITY AND PRICE OF AN AIRLINE SEAT!

Step	You Command	And the OAG Responds
1.	Start at any screen that lists schedules, i.e.: /SPhoenix;Chicago 15Nov 8A	The OAG will display the schedules you requested.
2.	Now enter B and the line number of the flight you're interested in, i.e.: B3	You've just entered the Reservation Booking System.
3.	Enter the number of seats you want. . . to a maximum of four, i.e.: 3	The system will ask you the type of trip you're planning: one way, round trip, or other.
4.	Enter the line number of trip type, i.e.: 2	A list of fares for the selected flight will appear. Check the status column to see if a seat is available at the fare you want.

Now you know if there are any seats left on the flight you want and the fare for those seats. Want to check another flight? Just enter a C command and the OAG ELECTRONIC EDITION will allow you to choose another flight from the schedule display.

To complete booking your own airline reservation on the OAG ELECTRONIC EDITION, just follow easy steps 5-9. When the confirmation number appears, you'll know a reservation has been made and ticketing will be completed by the method you've chosen.

BOOK YOUR OWN FLIGHTS QUICKLY AND EASILY!

Step	You Command	And the OAG Responds
5.	Enter B and the line number of the fare you want, i.e.: B2	Now the system needs to know the traveler's name.
6.	Enter traveler's name, i.e.: Mr. M. Jones	The OAG will request the telephone number.
7.	Enter telephone number as follows: Home-H, Business-B, i.e.: B 312-543-6000 x234	The system will ask you to verify your entries. Wish to make a change? Enter the number of the item and press RETURN to continue.

Continued

Medicine's index to biomedical literature.

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GO EBB or circle 6 on the Reader Service Form.

Step	You Command	And the OAG Responds
8.	Select the ticketing option you want from the menu, i.e.: 1	You may be prompted for more information depending on your ticketing option. (For further information on ticketing, simply enter /I RETURN.)
9.	A confirmation display will appear. Once this display appears, your reservation is complete.	Record your confirmation number or date of travel for future reference.

TO REVIEW OR CANCEL YOUR FLIGHT

Step	You Command	And the OAG Responds
1.	Enter a slashed C command, i.e.: /C	A cancel/review menu will appear.
2.	Select cancel or review from the menu, i.e.: 2	The ELECTRONIC EDITION will ask for the departure date of the first flight in your itinerary . . . or your confirmation number.
3.	Enter departure date or confirmation number, i.e.: 27 JUL or A1-XXXXX	A confirmation display will appear.
4.	If you selected 2 from the menu, simply enter C and your itinerary will be cancelled, i.e.: C	A display will appear, acknowledging that you have cancelled.

OAG Summary of Commands

Short Cut Method Commands	
For Schedules	/S PHOENIX;CHICAGO 15SEPT8A
For Fares	/F NEW YORK;SEATTLE 22 AUG
For Hotels	/H CHICAGO

For	Commands
Information and Assistance	/I
Cancel or Review Airline Reservations	/C
OAG Command Menu	/M
User Comments and Suggestions	/U
Exit OAG Electronic Edition	/Q
Decode any display, i.e.: ?ORD	?

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er to come online, read the messages you find interesting, store them to a diskette and answer them later. With a good word processor, you can write your messages before logging on to the network, and store them in a format that will transmit easily to one of the text editors available in the forum.

To prewrite your messages, you need a word processor that will store plain textfiles, completely lacking control characters. Do not try to transmit printer-ready files! CompuServe's editors will not know what to make of invisi-

You can even set up your messages so that they will handle all your storage commands for you. Suppose you want to store a message to the forum administrator. You would start your message with the "Leave," "To" and "Subject" fields, and end it with the storage command. Your message, then, would begin like this:

L
Sysop
Matters of note

Then insert the text, ending with "/exit" if you are in the Filge editor, or your modem speed.

A little preplanning is always worth your while. If I would have measured that beautiful roll-top desk before buying it, I might have bought another model — or, at the very least, have saved the time I spent trying to shove it through a door too small to give it passage. You, too, can save your networking dollars with just a little forethought. Before switching on your modem, why not plan ahead?

Alex Krislov is a free-lance writer from Cleveland.

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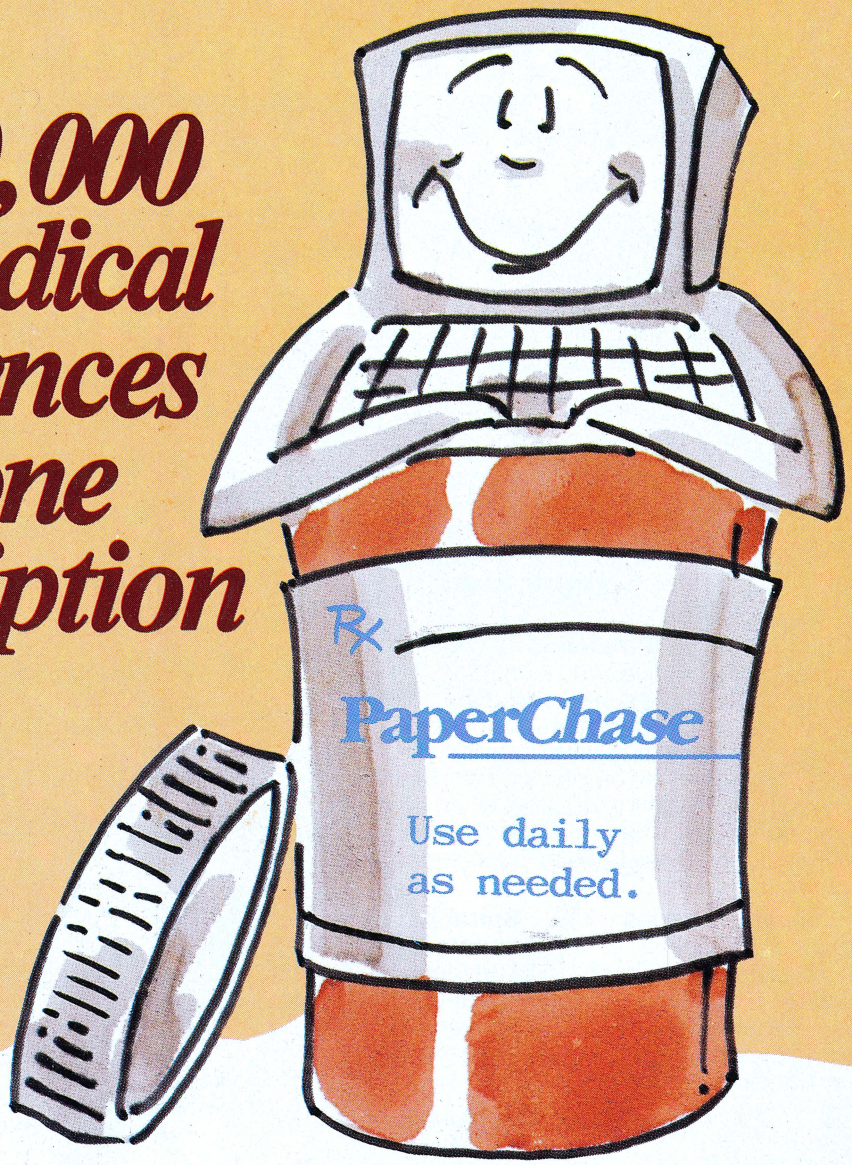

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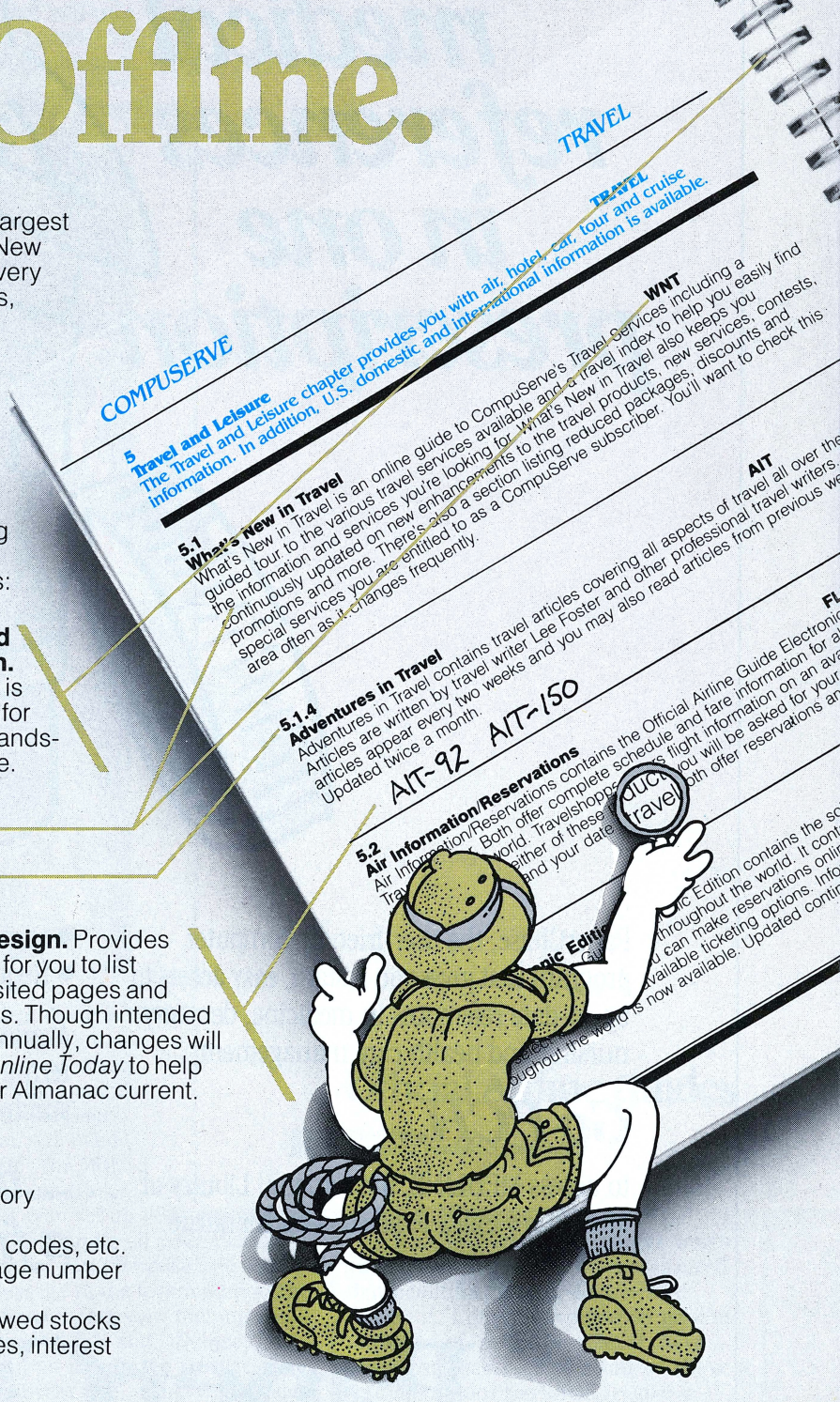

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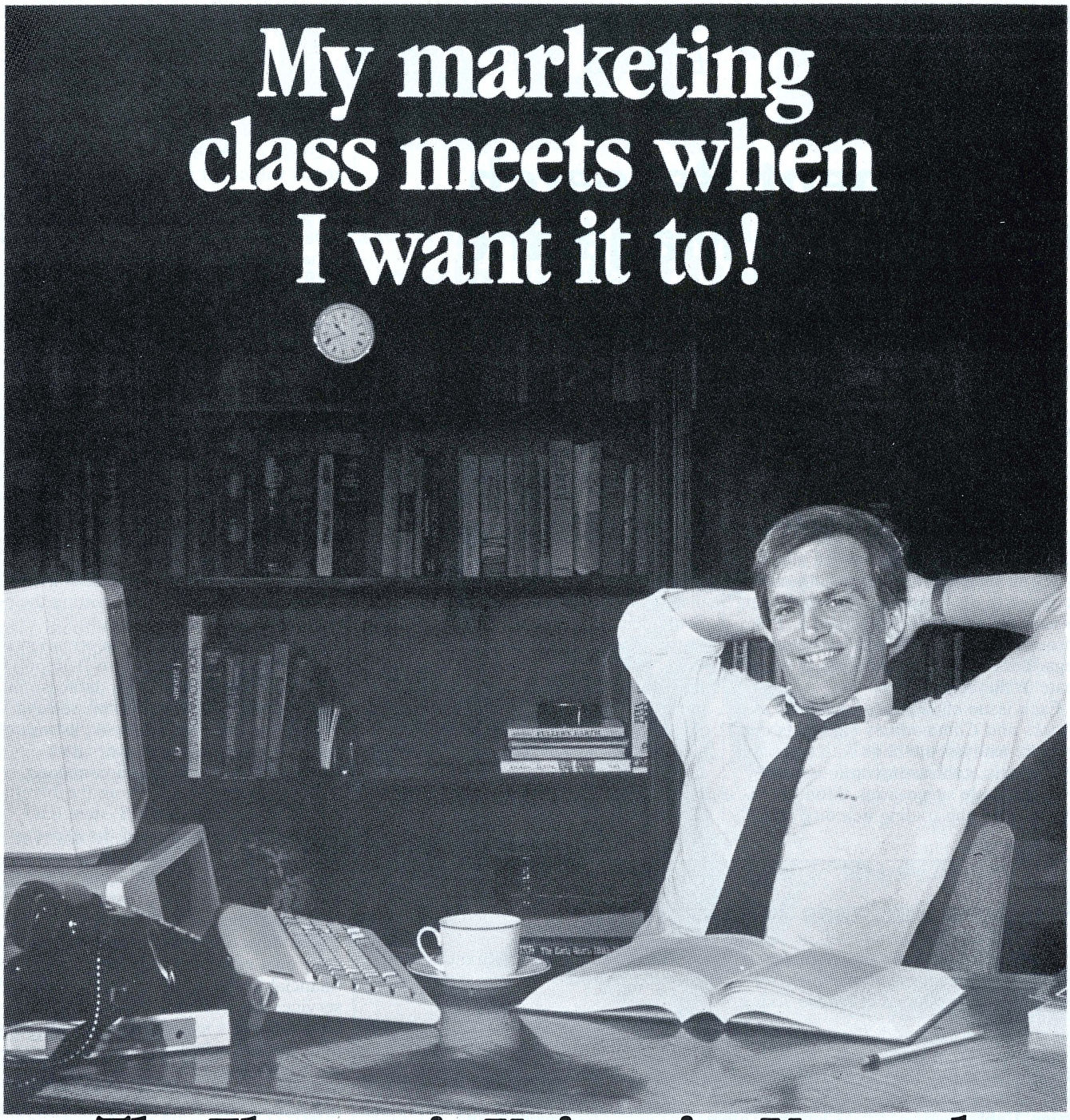

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For some time I've known I needed a course that would fine tune my strategic marketing skills, but with a demanding job, a family, it's not easy to do. Then I was told I missed a promotion because I needed an MBA. Still, going back to school at my age seemed nearly impossible. With my work schedule, the kids, there just isn't enough time to go to campus.

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Investment Research Yields Free Magazine

Professional investors and those interested in the methods investors use to select securities will find practical information in *Technical Analysis of Stocks and Commodities*, according to Steve Ball, CompuServe product marketing associate. CompuServe Information Service subscribers with the Executive Option now can qualify for a free subscription to this financial magazine.

Transaction surcharges from certain financial reporting programs on CompuServe will count toward eligibility for an introductory, six-month subscription to the magazine. Any qualifying surcharges recorded from June 1, 1986 through Oct. 31, 1986 will be included regardless of when you decide to participate in the offer.

Each issue of *Technical Analysis of Stocks and Commodities* highlights one or more analysis methods with comparative graphs, contrasting outlooks and program code suggestions. Monthly tables display the trading liquidity of stocks and commodities. Analyses of new financial software packages also are included.

"The magazine covers securities evaluations as do the financial programs on CompuServe's Executive Option," says Ball. "Subscribers can use technical analysis methods in the screening programs. The data retrieval programs let you tailor data for offline manipulation and further screening."

Through the programs and data on the Executive Option, subscribers can use both technical and fundamental analysis techniques in making investment decisions. Without videotex, an investor would have to search numerous issues of The Wall Street Journal, request financial reports from companies and use a software screening package to obtain similar information. Ball notes that the software packages cannot be updated with the frequency (daily updates) of the financial data on CompuServe.

Usage of the following financial programs will count toward the free magazine subscription: Disclosure Company Screening, Microquote's Securities Screening, Disclosure II Reports, Institutional Brokers' Estimate System, MQINT microcomputer software interface and the Data Retrieval program.

Using Disclosure Company Screening (type GO COSCREEN) and Microquote's Securities Screening (GO SCREEN), subscribers can scan data on more than 90,000 companies and securities to find investment candidates. The COSCREEN program allows screening on virtually all companies covered in The Wall Street Journal (approximately 9,000) and uses the most recent closing prices with the most recently reported fundamental financial information. Subscribers can reduce the realm of available securities to candidates fitting their personal investment criteria.

More detailed financial information is available through Disclosure II Reports (GO DISCLOSURE). This database includes annual reports, comprehensive descriptions of each business, listings of major stockholders and other data needed for financial decision-making.

Earnings projections from the Institutional Brokers Estimate System (GO IBES) offer a snapshot of the expectations of more than 2,500 professional analysts on more than 3,400 firms. Through I/B/E/S, you can gain an insight into your potential investment's earnings potential.

For subscribers who prefer to rely on their own estimates rather than those of financial analysts, other online financial services are available. Using CompuServe's historial pricing information, you can calculate your own expectations with data obtained through the MQINT microcomputer interface (GO MQINT) or the Data Retrieval program (GO MQUOTE and then DATA). In each case, you may format the data you retrieve for offline calculations by using a spreadsheet or technical analysis software.

Any transaction surcharges from the programs mentioned in this article will count toward each user's total. When your usage reaches $60 for the time period of the promotion (now through Oct. 31, 1986), your name and address will be sent to the publisher of *Technical Analysis of Stocks and Commodities* to process your magazine subscription. To participate in this offer and enter your subscription request, type GO TECHANAL at any prompt on the CompuServe Information Service.

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To obtain more information about CompuServe Business Information Service products mentioned in *Online Today*, contact the CompuServe branch sales office nearest you:

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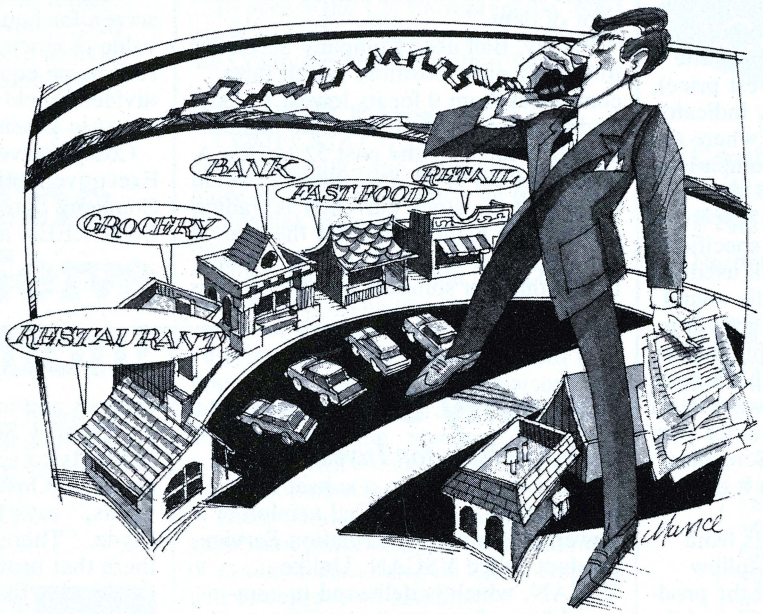

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New Disclosure screener provides wealth of information

A new CompuServe Executive Option product called Disclosure Company Screening provides a unique method for determining the investment appeal of 9,000 companies. It does this by combining screening capabilities for fundamentals — such as total assets, current ratio and net income — with daily price movements of the companies' common stock.

"This combination of capabilities sets the COSCREEN program apart," says Steve Ball, CompuServe financial products specialist. "Using daily pricing data, we can add such things as the latest closing price, the market-to-book ratio, price volatility (comparison of the year's highest price to the lowest price), and an important when-to-buy indicator called price position, showing where the stock is currently trading in comparison to its recent performance."

To illustrate how Company Screening can be used to quickly satisfy specific financial information needs, Ball used the product to screen for financially sound companies that have had fast growth in profitability and whose stock prices may not reflect the actual value of the companies. In short, Ball set up his own criteria to determine potentially good stock purchases, then used Company Screening to find them for him — which it did in less than two minutes.

Following on-screen prompts from Company Screening's easy-to-follow menu of choices, Ball directed the product to screen the financial stability of the database's 9,000 companies. To accomplish this, Company Screening first looked at each company's current ratio, which reflects current assets divided by current liabilities. "What you're looking for there is whether a company is able to pay off its short-term debt without liquidating its long-term assets," Ball explains. "For this exercise, we designated a ratio of current assets of at least twice the companies' current liabilities."

The second step, also to screen for financial stability, was to check the remaining companies' debt to equity ratio, which is determined by dividing the total debt of each company by the total equity. "In this step, we screened for companies with a debt structure that was less than twice that of their equity," Ball remarks. "We wanted to eliminate all heavily mortgaged companies."

In steps 3 and 4, Ball used Company Screening to screen for growth in sales and growth in net income, respectively, over the past four years. The parameters he set for screening included sales growth exceeding 25 percent annually (step 3), and a 35 percent growth of net income (step 4).

In step 5, Ball directed Company Screening to screen for companies with price-to-earnings ratios of less than 10 because, he explains, "this means the price of the stock may not be reflecting the companies' potential earnings. A low price-earnings ratio is often indicative of a new company that may be kind of risky. We've minimized that risk by ensuring in previous steps that the companies are well-funded and do not have a lot of debt."

Finally, Ball used Company Screening to look at price position, which rates companies from 0 for its lowest stock trading price, up to 100 for the highest trading price over the past 52 weeks. A price position of 75, for example, would mean that the stock currently is trading closer to its highest price for the year. A price position of 20, on the other hand, means that, for some reason, the stock is trading at the low end of the pricing scale. "This may indicate a good time to invest," says Ball, who designated a price position of less than 25 for this final step in his individualized screening procedure.

What emerged from Ball's two-minute screening procedure was 11 companies that met all six of Ball's criteria. "If you tried to do this research manually on 9,000 companies, it would take an incredible amount of time," he says. "I certainly wouldn't want to attempt it. Also, the information you did finally put together probably would not be as current since Company Screening includes pricing information up through the previous trading day."

Ball says Company Screening also can screen for liquidity, leverage, market value of stock vs. book value of assets, returns on equity and sales, cash flow, dividend yield and other factors of interest to potential investors.

CompuServe subscribers with the Executive Option can access Disclosure Company Screening by typing GO COSCREEN at any prompt.

— Carole Houze Gerber

Security Screening

Risk Analysis for Investors

Security Screening, a subset of Microquote, is a simplified version of a powerful Business Information Service product called VSCAN. Unlike VSCAN, which is delivered in command form, Security Screening provides an easy-to-use menu based on three screens that enable users to screen securities on price information, risk, industry, earnings, capitalization and Exchange (i.e., New York or over-the-counter).

The first screen displays a menu from which users can identify the types of issues from which they want to choose — for example, common stock, mutual funds or options. Once this choice is made, the next screen presents users with a choice of stock exchanges. For example, if common stocks have been selected, users may choose between New York Stock Exchange or over-the-counter stocks. Finally, users are presented with the central screening menu, which contains 21 categories of information on stocks, bonds and options on such areas as capitalization, earnings, dividends, price-to-earnings ratio, risk analysis and many others.

"Security Screening provides the opportunity to screen on current security prices and historical security movements," says Product Manager Scott Clyde. "There's no other product out there that provides these functions." Clyde adds that a key benefit of this product over professional newsletters and micro-based screening packages is that Security Screening offers immediate, up-to-the-minute information. "You're screening on last night's closes. There are lots of theories about the best way to screen for investment candidates," Clyde adds. "We believe Security Screening hits many squarely on the head.

"Besides being current, Security Screening provides individuals the capability to define their own criteria in screening for information, rather than having to rely on the advice of others."

For fast, timely information on which to base your security investment decisions, type GO SCREEN at any prompt on the CompuServe Information Service. This product is available to subscribers with the Executive Option.

— Carole Houze Gerber

Business Briefs

'Health Under Stress' in DR. JOB

DR. JOB's Career Tips column features an article by Sandra Pesmen (known as DR. JOB) discussing stress and how to cope with change. Read about techniques for transforming a negative event into a positive growth experience from *The Hardy Executive: Health Under Stress* by Dr. Salvatore R. Maddi and Dr. Suzanne Kobasa. Find out whether you are a "high hardiness" or "low hardiness" type and what you can do to influence the way an event affects your life.

Other Career Tips columns discuss careers in real estate, public accounting and electronics; employment issues, such as resumes, interviews, employment agencies and executive search firms; and business topics, including how to take an invention to market and how to incorporate a business.

To access DR. JOB, type GO DRJ at any prompt on the CompuServe Information Service.

USEN Expands Data Library

The US Entrepreneurs' Network has expanded its Marketing Data Library to include sales information to help entrepreneurs and business professionals enhance their selling skills, learn new ways to motivate salespeople and more.

A newsletter, "Great Ideas," is an exclusive for USEN members. This sales-oriented online newsletter is contributed by Mark H. Sanborn and Associates, a training and consulting firm specializing in marketing and sales communications.

To access the US Entrepreneurs' Network, type GO USEN at any prompt on the CompuServe Information Service.

COMPUSTAT II[R] Expands

COMPUSTAT II[R] recently added capabilities allowing customers to access more detailed information on the 6,500 companies in its annual industrial database.

More than 30 new data items have been added, including summaries of increase or decrease in working capital, currency translation rate, Standard & Poor's industry index code, Fortune industry code, Fortune rank, Standard & Poor's bond rating, Standard & Poor's common stock rating and Standard & Poor's commercial paper rating.

These additions are part of an ongoing expansion process in which the number of available data items on each company will increase from 280 to 350.

In the COMPUSTAT II[R] annual aggregate database that indexes entire industries rather than individual companies, the number of industry groupings has increased from 160 to 200.

COMPUSTAT II[R] is available to customers of CompuServe's Business Information Service.

PSFS Opens Business Banking

PSFS, Philadelpia's largest bank and a division of the Meritor Financial Group, offers Business Banking Direct, the first small-business banking program on the CompuServe Information Service.

BBD offers customers the capability to do business banking 24 hours a day, seven days a week, from the convenience of the office. Customers can pay bills, transfer funds between PSFS accounts, make PSFS commercial loan payments and review balances in PSFS checking, loan and investment accounts. They also can send wire transfers to another pre-authorized bank, request stop payments, send electronic messages to PSFS and obtain PSFS product information.

The services offered to the small business customer are not available to consumers. PSFS offers a home banking service through CompuServe, accessible by typing GO PSFS at any prompt on the CompuServe Information Service. To access Business Banking Direct, type GO BBD.

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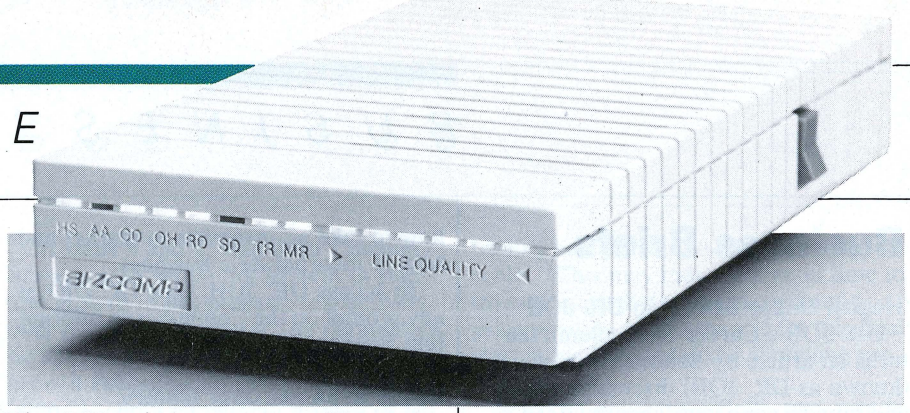

IntelliModem EXT

An External Data/Voice Modem

Bizcomp/Business Computer Corp.
532 Mercury Dr.
Sunnyvale, CA 94086
408/733-7800

Computers: Any computer or terminal equipped with an RS-232 serial port.
Operating System: Not applicable.
Features: 110/300/1200 baud asynchronous operation; conforms to Bell 103/212A standards; auto-dial and auto-answer capabilities; integrated "Voice Insert" feature; rotary or tone dialing; electronic call-progress detection; line-quality bar-graph display; compatible with "AT" ("attention") command set of Hayes Smartmodems or with Bizcomp IntelliSoft communications software for the IBM PC; 40-character command buffer.
Options: None.
Model Tested: Model 4120 IntelliModem EXT used with Compaq Deskpro on COM1 (IBM Asynchronous Communications Adapter) and COM2 (STB RIO Plus II multifunction card) ports; running PC-DOS 2.10 and various Smartmodem-compatible communications programs.
Prices: $499 for single units; $349 for 10 units; additional discounts for larger quantities.

Reviewed by Ernest E. Mau

Bizcomp's IntelliModem EXT ("EXTernal") provides 110, 300 or 1200 baud telecommunications in a compact package measuring 4.5 by 7.5 by 1.5 inches, which is about two-thirds the size of conventional external modems.

The EXT is compatible with the "AT" commands popularized by Hayes Smartmodems or with Bizcomp's own IntelliSoft program for IBM-style computers. "AT" command compatibility lets most popular communications programs drive this modem from any computer equipped with an RS-232 serial port.

Features expected of a Hayes-compatible modem are provided. Eight front-panel indicators display modem status including speed, receive data and send data signal-lines, automatic answering and other parameters. An adjustable-volume speaker lets the user hear call progression, a full set of "AT" commands is provided, and 24 "S registers" can control modem operations. Nine DIP switches are accessible on the bottom without opening the case; eight correspond to Smartmodem switches for easy configuration, and the ninth enables or disables Voice Insert.

With Voice Insert enabled and a standard telephone set connected to the modem, lifting the telephone receiver switches the modem from data to voice mode. Thus, the modem can dial voice calls and also lets connected users switch between data and voice to coordinate actions. However, Voice Insert is most practical when two EXT modems are connected so all switching can be automatic. A connected non-EXT modem must be switched under program or command control to alternate between data and voice. Although sometimes useful, many telecommunicators probably will disable Voice Insert.

A novel line-quality bar-graph display is provided by two red, two yellow and two green front-panel indicators. It indicates the results of electronically monitoring the entire communications path several hundred times a minute for signal strength, noise and other factors. The display alerts users to poor connections that should be terminated and redialed. The indicators should stay mostly green, with occasional yellow flashes. If red indicators light for any significant time, line quality is bad and data transfers are jeopardized.

The display usually kept two green or a green and a yellow indicator illuminated. I never saw red indications and was told that bad lines rarely are detected when using local nodes and that the display is most effective for long-distance calls. Indeed, I hit destructively noisy lines with strong signals, keeping indicators green or yellow because transient noise was not reflected by the display even though data transfers were disrupted. So the line-quality display can identify a truly bad line but does not guarantee a good line.

Electronic call-progress monitoring responds to dial tones, busy signals, ringing and voice connections quickly instead of waiting for delays to time out. That speeds dialing operations, but the user must activate line status detection with an "AT B1" command before dialing (power-up or reset defaults are no call-progress monitoring).

Bizcomp says the EXT "is designed to have one of the lowest error rates of all modems." Normally, it worked virtually error free and ranked high among modems I have used. At the rare times I experienced excessive errors, switching modems did not eliminate them and other users also reported problems, so the faults apparently were in the remote systems, not the IntelliModem.

Each of several tested IntelliModem EXT units disliked encountering a remote Hayes Smartmodem 2400. These are not the only modems having problems with that Hayes device, but they are the first that refused to complete connections. Using both 1200 and 300 baud, I never got the EXT to connect to any Smartmodem 2400. Without call-progress detection, The EXT typically stopped, timed out and disconnected after receiving and responding to the remote carrier. With call-progress detection, the EXT typically indicated a "voice" line and an immediate "no carrier" condition on receiving the remote carrier. Setting "protected originate" mode to prevent inadvertent voice-triggered disconnects did not help.

Apparently, this is a local problem. Bizcomp technicians went to great lengths attempting to solve the problem and made some changes. But they could not duplicate my observed failures, and none of several modems I tried cured the problem. The best guess is that there is some unidentified interaction between my local telephone system and the carrier signal from the Hayes Smartmodem 2400 that confuses the EXT modem. It's unlikely that many other users, if any, will experience the same difficulty.

That one problem aside, the IntelliModem EXT provided high-grade communications with commercial information services and worked beautifully with every tested third-party communications program having a Smartmodem or "AT" command setup. For the most part, it is a real charmer.

Ernest E. Mau, a full-time free-lance writer and Online Today *reviews editor, is based in Aurora, Colo. He is the author of several books and nearly 300 articles on microcomputer products and applications.*

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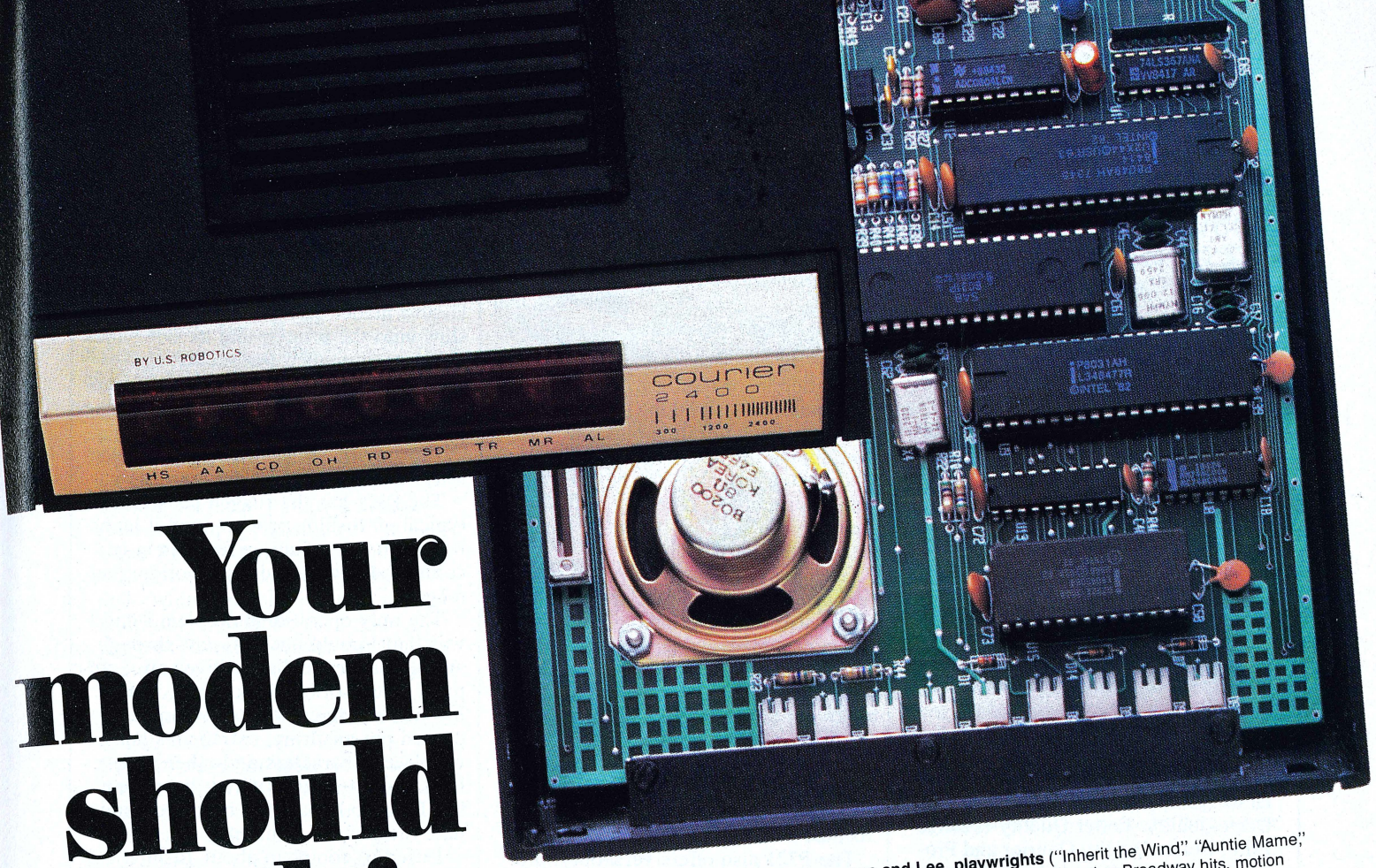

Your modem should be this good

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Toshiba's Economical P321 Printer

24-Pin Dot-Matrix Printing

Toshiba America Inc.
Information Systems Div.
2441 Michelle Dr.
Tustin, CA 92680
714/730-5000

Computers: Any computer with Centronics-compatible parallel interface; RS-232C serial interfacing also is available.
Operating System: Not applicable.
Features: 24-pin, 80-column, bidirectional printing with logic seeking; high-speed (draft) 10- and 12-pitch at 180 to 216 cps, high-quality (NLQ) 10- and 12-pitch at 60 to 72 cps, proportional at 80 cps, condensed at 175 cps and elongated printing at 40 to 108 cps; graphics resolutions of 180 by 180 or 180 by 360 dots per inch; built-in Standard Draft Quality (two sizes), Condensed Draft Quality, Letter Quality Prestige Elite, Letter Quality Courier and Proportional Letter Quality fonts; accepts one supplemental dual-font cartridge; character sets for USA, United Kingdom, France, Germany, Sweden, Norway and Spain plus a subset of IBM's character set; Toshiba escape-code emulation and Qume Sprint 11 emulation.
Options: IBM Graphics Printer emulation kit ($49); downloadable type font kit ($99); unidirectional paper tractor ($99); single-bin automatic sheetfeeder ($219); font cartridges (approximately $45 apiece).
System used for test: 640K Compaq Deskpro Model 2 driving the Toshiba P321 printer via built-in LPT1 parallel printer port with and without Computer Accessories' 64K Print Saver buffer.
List Prices: $699 for parallel interfaced standard printer; $749 for dual parallel/serial interfaced printer.

Reviewed by Ernest E. Mau

The P321 is Toshiba's replacement for the P1340 printer, providing 24-pin printing in an 80-column machine that is more affordable than the wide-carriage P351. Besides being more versatile and having more features than the P1340, the P321 also is faster. Where the P1340 had top speeds of 56 cps letter-quality and 144 cps draft, the P321 reaches 72 and 216 cps respectively. However, it is not as flexible or as fast as the bigger P351, which can do 100 cps letter quality and 288 cps draft quality.

The dominant P321 attribute is its print quality. It is nothing less than magnificent. Using ultrafine pins and overlapping the dots slightly achieves text printouts rivaling the best letter-quality printers. It often takes close examination to see that printouts came from a dot-matrix printer.

Graphics printouts from programs that support Toshiba products are even more impressive. I have printed graphics from computer-aided design software with legends as small as 4-point or 6-point type remaining completely legible. That is virtually impossible with other printers.

I have used numerous printers, but I can safely say that none I have tried have approached the text and graphics print quality of the P321, except Toshiba's own P351.

The P321 also offers versatility, providing 10, 12 or 16.7 pitch and proportional spacing chosen by DIP switches or by commands issued from the connected computer. "Elongated type" is activated by computer commands. Since the P321 can emulate the Qume Sprint 11, users can control horizontal spacing to within 1/120 inch and vertical spacing to within 1/48 inch for almost unlimited effects. That same emulation also lets the P321 work with programs that support Qume printers but have not added Toshiba drivers.

While six built-in fonts and eight foreign and domestic character sets should satisfy most people, the P321 also accepts an additional plug-in font cartridge. Only one cartridge can be used at a time, but each provides two fonts in such combinations as Greek-Math with Scientific-Pi, Elite Italic with Gothic or Bold Face with Letter Gothic. These fonts can be selected by switches or computer commands.

The P321 can be equipped with a downloadable type font kit and can accept downloaded fonts. However, suitable software is needed, and I had none to test the function. The printer also has built-in block graphics, but I have never found that particularly useful.

The optional unidirectional tractor handles paper feeding effortlessly. It attaches easily and pulls paper smoothly, with no tendency to bind. Unlike some tractors, this one did well even with graphics, maintaining acceptable alignment for all but critical, repeatedly struck graphics, where I still found it advisable to engage the friction platen.

The standard P321 includes a sheet-feeding guide. This plastic assembly slips onto the printer, and its side slides aid in positioning loose sheets. Unlike the P351, the P321 does not try to automate loading by automatically lifting the paper bail, turning the roller and advancing the paper. I never found that reliable anyway, and I did not miss it.

The P321 has the rugged construction typical of Toshiba printers, and it incorporates noise reduction features in its contoured covers and foam bottom padding.

The only operational problem I had was that I could not feed data through an external printer buffer. Even my Computer Accessories' Print Saver, which has not interfered with other printers, caused pin misfiring, extraneous lines, misplaced characters and other problems. I do not know why it happened, but I had to bypass the buffer to eliminate the garbled printouts.

I used to complain about Toshiba's escape-code sequences not being supported by popular software packages, forcing users to rely on the Qume emulation. Those days are about over, and many new software packages now include Toshiba drivers. A list of compatible software with detailed setup requirements is available from Toshiba in a 125-page book that covers 76 programs and two interface cards, and that list does not cover all possibilities.

Users of old software predating Toshiba printers may have problems, however. While some programs have been updated to add Toshiba support, obtaining numerous drivers could be costly, especially if companies insist on upgrading whole packages. Alternatively, the user can buy Toshiba's emulation kit for IBM Graphics Printers. It requires installing two chips in the printer and eliminates Qume emulation, but it should make the printer compatible with most programs intended for IBM-style computers. Now, if Toshiba would come up with Epson emulation for non-IBM users, they would have an almost universal printer.

Nevertheless, this is a fine printer for anyone needing top quality printouts and should be on everyone's "must see" list.

Ernest E. Mau, a full-time free-lance writer and Online Today *reviews editor, is based in Aurora, Colo. He is the author of several books and nearly 300 articles on microcomputer products and applications.*

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Fastback

Takes The Bother Out of Backing Up Hard Disks

Fifth Generation Systems
7942 Picardy Ave., B-350
Baton Rouge, LA 70809
504/767-0075

Computers: IBM PC, PC-XT, PC-AT and compatibles.
Operating Systems: PC-DOS or MS-DOS.
Media: Requires a hard disk and at least one floppy drive.
Copy Protection: Protected by a "signature" file on the distribution disk, which must be inserted in the A drive at initialization.
System Requirements: For first backup, a full PC-XT requires 20 to 25 diskettes of 360K each, and a full PC-AT requires 15 to 18 diskettes of 1.2MB each.
System used for test: 640K Tandy 1000 with two diskette drives and a 10MB hard disk.
List Price: $179

Reviewed by Charles Bowen

When I hung a hard disk on my computer, I was in heaven, at least until it came time to back it up to diskettes. Using the operating system's "backup" function was ridiculous, taking more than two hours for eight megabytes.

Fortunately, a sleek utility called Fastback performs as advertised, reducing those hours of disk swapping to minutes.

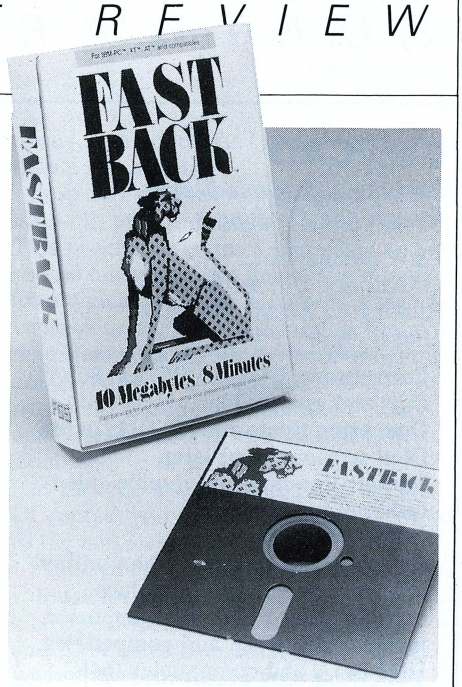
The first time I used Fastback, I had 8.4 megabytes to back up and gave the program the extra task of formatting floppies as it worked. In 19 minutes, it had formatted 20 needed floppies and backed up 554 files. Better still, with the disks already formatted, Fastback backed up the same 8.4 megabytes in just eight minutes.

Fastback uses a handy screen display to report its progress while dumping files to diskettes, prompting you when to replace the diskettes. It needs only 17 seconds to fill a 360K diskette.

The newest version (version 5) has added several nifty features. For example, an advanced error correction technique recovers data from damaged diskettes. A catalog of archived data can be printed out from DOS. Advanced commands can search out specific files, directories or disks included in a single backup.

Fastback is sophisticated, but not hard to use. Its manual is a pamphlet covering basic operation in four pages. The remaining dozen pages give you the lowdown on advanced techniques.

Since Fastback is such a hyper little devil, I now can spend more time constructively creating new data, rather than wasting endless hours backing up the old stuff.



Charles Bowen is a contributing editor of Online Today. *His CompuServe User ID number is 70007,411.*

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EasyCAD

Provides Affordable Planar Design and Drafting

T&W Systems Inc.
7352 Prince Dr., #106
Huntington Beach, CA 92647
714/847-9960

Computers: IBM PC, PC-XT, PC-AT, PCjr and compatibles.
Operating Systems: PC-DOS or MS-DOS version 2.0 or later.
Media: Requires one double-sided diskette drive.
Copy Protection: None.
Required Peripherals: Color or monochrome monitor and graphics-capable adapter; adapter supported include IBM CGA and compatibles, IBM EGA and compatibles (64K, 128K or 256K), IBM Professional Graphics, Hercules Graphics Card, Sigma Designs Color 400, Tecmar Graphics Master, Vectrix VX/PC and Verticom M-256.
Other Requirements: Minimum 256K RAM.
Optional Items: Additional diskette drives or hard disk; IBM Graphics Printer, IBM Pro Printer or Hewlett-Packard Laserjet printer; Hewlett-Packard 7475, Heathkit Sweet-P single pen or Houston Instruments DMP-51MP plotter; Microsoft serial/bus mouse, Logitech Logimouse, Torrington Manager Mouse, Kurta PenMouse+ or Kurta Series 1 Digitizers.
System used for test: 640K Compaq Deskpro Model 2 with two diskette drives, 20MB IOMEGA Alpha-10 Cartridge Drive Subsystem (Bernoulli Box), Amdek Color 722 RGB monitor, STB Systems EGA Plus video adapter, 8087-2 math coprocessor and Epson FX-85, Genicom 3410 and Brother 2024L printers all emulating an IBM Graphics Printer; running IBM PC-DOS 2.10.
List Price: $495

Reviewed by Ernest E. Mau

Computer Aided Design (CAD) software for personal computers is available at prices from under $500 to well over $2,000. Generally, expensive CAD packages contain the most features but are aimed at the most sophisticated applications. Yet, many people do not need the power of the expensive programs and can accomplish their tasks with the cheaper ones. Those are the users who will benefit from EasyCAD.

Version 1.00 of this low-cost package for two-dimensional drawings comes on two copyable diskettes. One has the drawing and plotting programs, auxiliary files and sample drawings. The other has utility programs for converting drawings between EasyCAD and the supplier's elaborate VersaCAD package or Autodesk's AutoCAD system. Although EasyCAD can be used with one diskette drive, drawing storage is too limited to be practical. Two diskette drives are better, but a hard disk is ideal.

EasyCAD runs with minimal hardware but accommodates changing needs and preferences. It can use just the keyboard for input but readily accepts selected mice or digitizers. It runs with or without a math coprocessor but is noticeably faster with a coprocessor. It outputs to several printing and plotting devices spanning a wide price range.

The critical hardware is the video display system. A four-color medium-resolution Color Graphics Adapter (CGA) display was too coarse for my liking and required too much "zooming" to examine and manipulate drawing details. Black-and-white high-resolution CGA display gave better detail but sacrificed colors often needed for complicated designs, so neither CGA mode was particularly impressive. Four-color EGA display improved detail and added some color control, but I was satisfied only with 16-color EGA displays that were crisp and used numerous visible colors to define and separate drawing elements.

EasyCAD can be driven by menu, command line or both, and it has most features needed for planar drawings of surprising complexity. Graphic "primitives" handle points, lines, boxes, polygons, smooth polygons and "splines" (smooth curves defined by seven to 123 points and drawn according to mathematical averages). Two drawing methods for circles and three for arcs are provided. EasyCAD has "rubber band" lines and windows, versatile zooming, centering, shifting, 31 drawing layers, 127 defined colors, eight line styles and four settable and retrievable views.

Editing facilities include moving, dragging, scaling, rotating, connecting, copying, repeating, mirroring, grouping and ungrouping drawing "entities" plus erasing selected sections, undoing previous operations or changing layers, text styles, entity colors and other elements.

EasyCAD allows line or paragraph text in two predefined fonts and has important features such as displayable grids, "snapping" entries to grid increments, forcing orthogonal lines, constructing perpendicular or parallel lines, and others. It also lets the user redefine pull-down menus and define up to 40 function key macros.

Perhaps the most powerful feature is automatic dimensioning, which draws arrows and inserts dimensions where the user wants. It handles US, metric and numeric (digital) dimensions, and units can be specified in inches, feet, meters or millimeters. Best of all, it can automatically convert between US, metric and numeric values throughout a drawing and redraw the design accordingly.

As versatile as all this is, EasyCad has limitations. It does not handle three-dimensional drawings or isometric renderings except as crude simulations done without special aids. It will not draw ellipses or elliptical arcs except by simulating full ellipses through smooth polygons. It cannot "break" a line once drawn and can manipulate only whole entities. It also lacks the ability to draw lines tangent to arcs or circles except as lines perpendicular to previously drawn radii. And, I could not find a way to remove grids from the screen once they had been activated.

The conversion programs were not tested extensively except to import some AutoCAD drawings into EasyCAD. Conversion between these dissimilar systems has limitations, but generally went smoothly for planar drawings except for some losses of colors. Conversion even detected elliptical arcs in AutoCAD files and simulated them as smooth polygons.

The plotting program was disappointing, at least when using a printer. It allowed scaling but could not rotate drawings, and it printed only light single-pass unenhanced images.

EasyCAD is a powerful program for planar drawing. It functions smoothly without detectable malfunctions, and it is easily learned in a couple of hours. The manual is well done, and a 15-minute tutorial teaches most of what the user needs to know. Still, I am hoping for a revision with improved plotting to printers and added line breaking, ellipses and tangent lines for greater versatility.

Ernest E. Mau, a full-time free-lance writer and Online Today *reviews editor, is based in Aurora, Colo. He is the author of several books and nearly 300 articles on microcomputer products and applications.*

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AVA 1.0

Portfolio Management Software

Market Maker Software
55 Sutter St., #26
San Francisco, CA 94104
415/943-1945

Computers: IBM PC, PC-XT, PC-AT, PCjr and compatibles.
Operating Systems: PC-DOS or MS-DOS version 2.0 later.
Media: Requires one double-density disk drive.
Copy Protection: None.
Required Peripherals: 132-column printer or 80-column printer with condensed print capability.
Other Requirements: Minimum 192K RAM; graphics-capable video adapter required for graphic reports.
Optional Items: Two disk drives or one disk drive and hard disk are recommended system configurations; modem is optional.
System used for test: 256K Compaq Portable with Okidata Microline 84 printer; running PC-DOS 2.1.
List Price: $295

Reviewed by William J. Lynott

Computers are natural tools for managing investment portfolios. The ability to store, organize and manipulate data is what investment management is all about.

But computers cannot do the job by themselves. As in any computer application, software is the critical element. AVA tracks stocks, bonds, mutual funds, options, futures and other investments. It provides annualized returns for individual items or entire portfolios on either a risk-adjusted or non-adjusted basis.

I was especially impressed by AVA's reporting capabilities. Through simple menu selections, users may obtain reports on holdings, realized gains and losses, tax accounting, including Schedule D, dividend and interest income, and margin expenses. These reports are well laid out, but they are all in 132-column format. An 80-column printer must have condensed print capability to print AVA reports. Most reports also can be displayed on the screen, and graphics-capable systems can display graphs of the returns for each holding.

You begin using AVA by telling it what hardware you are using and how much disk storage space to allocate for portfolio data. When using a floppy disk for data storage, the disk capacity is the limit. However, when using a hard disk, you must tell AVA how much storage to set aside for portfolio data. Once you designate a storage limit, AVA automatically calculates the number of transactions each portfolio will hold. With a color monitor, you may designate your selection of background, foreground and summary colors.

All AVA functions are entered from the Master Menu where choices include Transaction Entry, Order Entry, Display Reports on Screen, Print Reports and Update Holdings.

Setting up a portfolio in AVA is simplicity itself. The program prompts for a portfolio name, then prompts for each information item needed to enter a security transaction. Once you identify the type of security you are entering, say a common stock, the prompts are limited to information required for that type of investment. AVA's excellent documentation explains how to satisfy each prompt. At any time, you may switch to the Data Modification Screen to make a fast inspection and any necessary corrections of data already entered.

Program defaults assign 14 types of security classifications such as common stocks, preferred stocks or corporate bonds. You may change any of these to suit your own requirements.

I was most impressed with AVA's speedy operation. Many portfolio management programs with similar reporting capabilities are slow to the point of annoyance. I know of at least one that occupies four floppy diskettes, and switching between its functions is slower than cold molasses. Not so with AVA! With the entire program on a single floppy, AVA shifts almost effortlessly from one function to another. Moving between most functions is almost instantaneous, and none that I tested took more than a few seconds.

You may manually update your portfolios with price information at any time. This procedure is quick and easy, and it should not take more than a few minutes for a typical portfolio. However, a big advantage to computer-assisted portfolio management is automatic price updating, and AVA does not disappoint in this department. Using a modem and a standard telephone line, you may access CompuServe or any of four other services for a completely automatic update. Of course, you must have a subscription to the service you want to use.

After you tell AVA which service you will use for updating, you need only select Updating from the master menu, and AVA takes over from there. When you enter securities in your portfolios, AVA constructs a special file that holds the symbols common to all portfolios on your data disk. You might, for example, hold a specific stock in two or more separate portfolios. To save time and connect charges, AVA sends that symbol only once to the information service, but updates all portfolios holding that stock.

Automatic price updating is a big attraction in portfolio management software, but either manual or automatic updating will provide all capabilities of the AVA package.

While AVA is by no means an inexpensive package, it offers as many features as some I have seen that sell for considerably more. Equally important, it is easy to learn and use.

William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia. His CompuServe User ID number is 70007,420.

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The Whiz Quiz

GO WHIZ

Category: Literature

Q. In the late 19th and early 20th centuries, an American author contrasted American values and culture with those of Europe in novels set in Europe but with American characters central to the plot. Name the author.

A. 1) Henry James 2) Bret Harte
3) Upton Sinclair 4) Sinclair Lewis

GO WHIZ

(SEE ANSWERS ON PAGE 47)

A sample question from MINUTIAE™ — the trivia challenge, online in September.

MINUTIAE™ on COMPUSERVE — it's the thought that counts.

ProGraf

Yields 'Point And Pick' Business Graphics

Computer Graphics Group Inc.
568 14th St. NW
Atlanta, GA 30318
404/876-9469

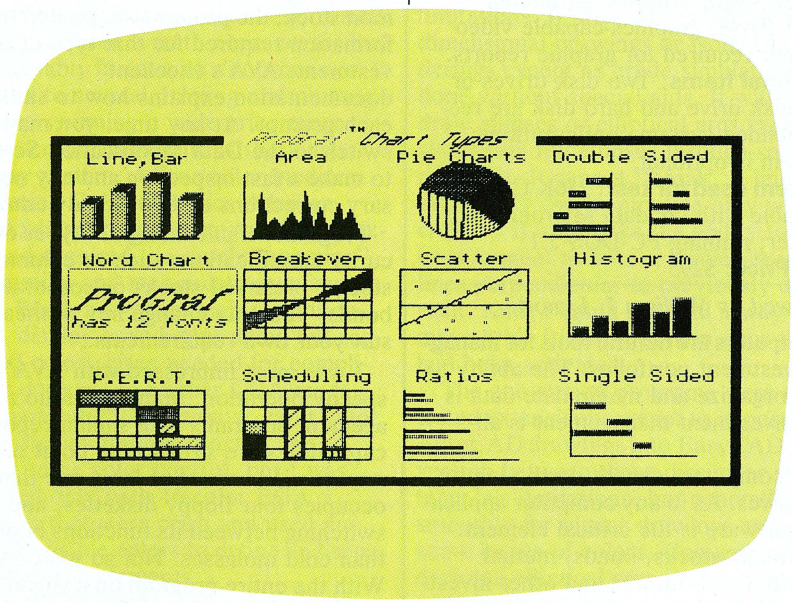
Computers: IBM PC, PC-XT, PC-AT and 100 percent compatibles.
Operating Systems: PC-DOS or MS-DOS version 2.0 or higher.
Media: Requires one diskette drive or a hard disk.
Copy Protection: None.
Required Peripherals: None.
Other Requirements: 192K RAM required, but 256K recommended; IBM or compatible color/graphics card; EGA video cards not currently supported.
Optional Items: Microsoft mouse, Mouse Systems mouse, Summamouse, Koala touch tablet, Summagraphics MM series digitizers, Summagraphics Bitpad One digitizer, or FTG light pen strongly recommended for input; graphics-capable printer (supports IBM Graphics printer; Epson FX-80, MX-80, JX-80 or RX-80 series; Quadjet Inkjet 1, Radio Shack CGP-220, Canon A-1210, HP 2225C Thinkjet, C.Itoh 8510A or 8510SCP, NEC 8023, Okidata 92 or 93); plotter (supports Hewlett-Packard 7220C, 7220T, 7470, 7475; Houston Instruments DMP series; Epson HI-80; Strobe S-100).
System used for test: 640K IBM PC with 20MB hard disk, 360K double-sided, double-density diskette drive, Epson FX-80+ printer, Microsoft Mouse and Everex Edge graphics card; running PC-DOS 2.1.
List Price: $149

Reviewed by James Moran

Business graphics are a segment of personal computing software in which new packages are released almost weekly. Business users have found that graphics add pizazz to an otherwise boring presentation. And if you can keep your audience's attention, you have a better chance of getting them to see your point of view. "Dog and pony" shows were big draws in the days of small, traveling circuses, and people in commercial environments are not that far removed, emotionally, from the "rubes" of yesteryear.

ProGraf is a business graphics package meant to operate with a color/graphics card, an analog input device such as a mouse or digitizer and a dot-controllable printer (dot-matrix or inkjet). Support for laser printers will be in the next version, according to the developer. A future version also will support EGA cards.

The software comes with a demonstration diskette that runs through all the drawing options available in ProGraf, which is useful for showing what can be done with the package. This will be appreciated by users who recognize that a written description of a process seldom approaches a picture in clarity. Also, numerous ideas for future uses of the package can be gleaned from the demo.



While installation is a bit more complicated than for most non-graphics software, it is not atypical of other graphics packages. The selection of input and output devices is too wide for a "standardized" configuration, but ProGraf does come with a built-in configuration for a Microsoft Mouse, Epson or IBM printer and a few other standard devices (such as IBM light pen). Users who want other supported devices (there are quite a few) must construct a new configuration by loading a special, supplied diskette and following the menu choices. ProGraf can be installed on a hard disk and runs without special keydisks or other awkward copy-protection schemes to annoy users.

Operation is not complicated and experienced users will notice similarities between this and other graphics packages. Since the Macintosh introduced pull-down menus, virtually every graphics package has used a similar interface, and ProGraf is no exception. Users will not find the operation of this system difficult. For those who need data from spreadsheets such as Lotus 1-2-3, MultiPlan or SuperCalc, the necessary interfaces (such as DIF) are part of ProGraf. Data transfers occur quickly and operate as expected.

Charting capabilities are comprehensive, and a full set of options creates line, bar, area, PERT, histogram, and 13 other standard statistical and business charts. Custom graphics can be added to standard charts with drawing tools that can produce bars, rectangles, arrows and lines. Several text fonts are available for titling.

Freehand drawing is not a part of ProGraf since the graphics are business oriented. In fact, the slide show function is one of the best I have seen and includes an excellent editor for creating shows. Internally created "slides" (charts saved to disk) can be presented with slow or fast dissolves, color curtains and several other effective presentation techniques.

ProGraf is a pleasing business graphics package that contains a comprehensive set of tools, but does not burden users with useless (for most) artistic capabilities. Documentation is complete, and the recently revised manual is easy to understand. Users who dislike manuals will find a comprehensive online help facility useful. This is one of the better "point and pick" graphics packages available.

James Moran is a free-lance writer and frequent contributor to Online Today. *His CompuServe User ID number is 70007,2253.*

GO EBB or circle 17 on the Reader Service Form.

Cricket Graph

Provides Color Business Graphics

Cricket Software
3508 Market St., #206
Philadelphia, PA 19104
215/387-7955 or 800/345-8112

Computers: Apple Macintosh 512K and Macintosh Plus.
Operating System: Macintosh desktop environment.
Media: Supplied on two diskettes.
Copy Protection: None.
Required Peripherals: External drive; printer or plotter.
Other Requirements: Apple ImageWriter II to print in color.
Optional Items: Hard disk; Apple LaserWriter printer; Apple or Hewlett-Packard color plotter.
System used for test: 512K Apple Macintosh with single-sided internal drive, 800K double-sided external drive and Apple ImageWriter printer.
List Prices: $195; demonstration disk costs $6.95

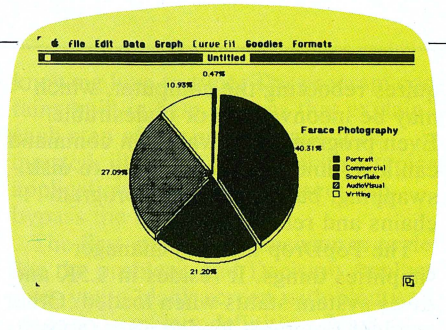
Reviewed by Joe Farace

Don't let the cute name fool you. Cricket Graph is serious business and scientific graphics software.

The package contains two single-sided disks, namely the "System & Utilities" and "Graph" (program) disks. The system disk contains Apple's "Switcher" utility for rapid movement from one application to another, and a preconfigured "Switcher" document for Cricket Graph is included. Installing MacDraw on Switcher should make enhancing Cricket-created graphs fast and easy. Also included are installation routines for various color plotters.

The manual's first 35 pages give an excellent introduction to the program. Within a few minutes, I was creating fairly sophisticated charts and graphs. For graphic needs extending merely to occasional charts for inclusion in reports, that is all the reading needed. Anyone spending just a few hours with the program should be able to chart effectively. Nevertheless, sophisticated business or scientific users should follow the manual from beginning to end to get the most from the program. Don't neglect the excellent appendices that include information on using "Switcher" with other programs and on using color plotters.

Users of 800K external disk drives have to copy Apple's "HD20" start-up onto the Cricket "System" disk. Since Cricket Graph is not copy protected, it is



advisable to copy both disks onto one double-sided disk, which makes the program run faster because Apple/Sony 800K drives are twice as fast as single-sided ones.

A problem novice graphers face is making charts look good. The manual's Appendix A contains some "do's and don'ts" of creating effective graphs, with simple but helpful tips on balance, space and scale. This is an excellent starting point for beginners, and Cricket Graph's speed of operation encourages experimenting.

Data can be input directly into Cricket Graph or imported from other programs like Omnis 3, OverVue, Multiplan or Excel. Cricket Graph even accepts text files from MacTerminal, Word or MacWrite.

Creating a graph from original data was easy, with the entire process controlled by simple dialogue boxes and pull-down menus. Changes from scatter to bar to pie charts were made quickly and easily as I probed for the chart types best fitting my data.

Transferring data from Multiplan was not as easy as I would have liked. I saved a Multiplan file in Microsoft's "SYLK" format, and copied it to the "Graph" disk. Simultaneously opening Cricket Graph and the file created a set of data, but I was not able to graph from it. Yet, Cricket Software personnel told me they do this all the time without problems.

The documentation was woefully brief concerning file transfers (the one weakness in an otherwise excellent manual), so I followed their example exactly. I created a "SYLK" file from a portion (not the whole) of a Multiplan file. This one opened correctly, and after many disk swaps let me produce a graph. Excessive disk swapping leads me to believe that transfers between databases or spreadsheets probably are best done in a hard disk environment.

Changes and additions to charts were simple and intuitive, making extensive use of the mouse. While an "undo" command was not as universally applicable as in MacPaint or MacDraw, the program responded so quickly that it was not annoying.

A feature called "add depth" is among my favorites and can create three-dimensional effects that look great in bar and pie charts. Pie wedges also can be pulled out for emphasis by clicking and dragging the slice in question. Colors may be added through a "show color" feature, but an ImageWriter II is needed to print in color. Completed charts can be saved in Apple's "pict" format and exported to MacDraw for further enhancement.

What I like most about Cricket Graph is that it is a multi-level program. It can create a simple bar chart to include in next month's sales report, or it can be as complex a graphing package as most users are likely to need. Yet it's disguised as a little graphics package with a cute name.

Joe Farace is a writer and photographer from Denver. He is a contributing editor of PhotoMethods *magazine and his reviews of Macintosh software will appear in an upcoming book from Arrays Inc.*

GO EBB or circle 18 on the Reader Service Form.

The Multiple Choice

GO TMC

Category: Sports

Q. In basketball, who holds the distinction of the most free throw attempts in a lifetime?

A. 1) Kareem Abdul Jabar 2) Bill Russell
3) Wilt Chamberlin 4) Bill Walton

GO TMC

(SEE ANSWERS ON PAGE 47)
A sample question from MINUTIAE™ — the trivia challenge, online in September.

MINUTIAE™ on COMPUSERVE — it's the thought that counts.

PopDrop

For Memory-Resident Programs

InfoStructures Inc.
P.O. Box 32617
Tucson, AZ 85751
602/323-4600

Computers: IBM PC, PC-XT, PC-AT and 100 percent compatibles.
Operating Systems: PC-DOS or MS-DOS version 2.0 or higher.
Media: Requires one double-sided diskette drive.
Copy Protection: None.
Required Peripherals: Color or monochrome monitor; graphics capability is not required.
Other Requirements: Each PopDrop "layer" consumes 1.5K of RAM plus whatever other resident and nonresident programs are used.
Optional Items: Additional diskette drives or hard disk.
System used for test: 640K Compaq Deskpro Model 2 with two diskette drives, 20MB IOMEGA Alpha-10 Cartridge Drive Subsystem (Bernoulli Box), 2MB Maynard Electronics' Accent Expanded Memory Card, Amdek Color 722 RGB monitor, STB Systems' EGA Plus video adapter and Epson FX-85 printer; running IBM PC-DOS 2.10.
List Price: $19.95 plus $3.00 shipping and handling.

Reviewed by Ernest E. Mau

Memory-resident programs are marvelous, accessing calculators, calendars, outliners, RAM disks and so on from within virtually any application. Yet they can cause memory management problems because some aren't well behaved, conflict with others, insist on being loaded last or consume memory needed elsewhere.

Removing resident programs often requires rebooting the computer, which may be inconvenient or undesirable. Even programs removable on command can lose time and productivity to disk swapping, backing through program chains and reloading.

The PopDrop memory manager simplifies things. It resides in 1.5K and saves system status when loaded. Other resident programs loaded after (above) it manually or via batch files then can be removed just by issuing a PopDrop command. PopDrop layering lets groups of resident programs be removed in reverse order without affecting lower layers. PopDrop also can remove all layers with or without removing PopDrop itself. However, it cannot remove a layer if another is above it, nor can it remove individual programs from a multi-program layer.

PopDrop is easily used after watching a 10-minute on-disk tutorial. It works well, and I even had it removing resident utilities while working within other programs, although that's risky.

PopDrop handled all resident programs I tried. As expected, however, it didn't resolve conflicts among incompatible programs. Occasionally, the computer still "hangs" after loading mutually incompatible programs, and users should read a "tips" file on disk for information on possible conflicts.

Users also should approach batch loading cautiously. At least one resident program correctly prevented second and subsequent reloadings if originally loaded from the DOS command line, but it permitted multiple resident copies when loaded from a batch file.

I find PopDrop truly useful. While it doesn't really break the 640K barrier, it lets me manage memory much more effectively and efficiently than might otherwise be possible.

Ernest E. Mau, a full-time free-lance writer and Online Today *reviews editor, is based in Aurora, Colo. He is the author of several books and nearly 300 articles on microcomputer products and applications.*

GO EBB or circle 19 on the Reader Service Form.

Mach 128

Cartridge Accelerates Commodore Disk Drives

Access Software
2561 South 1560 West, Suite A
Woods Cross, UT 84087
801/298-9077 or 800/824-2549

Computers: Commodore 128 and 64.
Operating System: Commodore DOS.
Media: Requires one Commodore 1541 or 1571 disk drive.
Copy Protection: Program is on cartridge; disk programs are not protected but require cartridge to run.
Required Peripheral: Commodore 1541 or 1571 disk drive.
Optional Items: Color monitor and printer.
Systems used for test: Commodore 128 and 64 with 1541 and 1571 disk drives, Commodore 1702 monitor, Cardco +G printer interface and Epson RX-80 printer.
Retail Price: $49.95

Reviewed by Cheryl Peterson

Access Software has improved its popular Mach 5 product to run with Commodore 128 computers. Besides reducing load time for most programs, Mach 128 includes one commonly desired hardware add-on, namely a reset switch.

Another switch sets the mode for computer booting. The 128 runs in three modes: CP/M, 128 and 64. On a C-128 computer, the Mach 128 mode switch chooses between 128 and 64 booting. With a C-64 computer, the switch allows running incompatible programs by disabling the cartridge without removing it.

The cartridge has a menu-driven DOS wedge. With it, shorthand DOS commands are sent to the drive easily. Although it does not include a disk copy program, it does have a 10-second formatting feature. Also included are commands to activate and deactivate printer channels. A screen dump facility is resident. And disk directories can be viewed without disturbing programs in memory.

Like the Mach 5, the Mach 128 includes an excellent disk cataloging program and BASIC +4, which adds an extra 4K of RAM to the transient programming area and allows running larger programs than normal.

Used with both C-128 and C-64 computers, the cartridge worked admirably. With only a few exceptions, I have loaded and run most programs I normally use, and it has proven especially helpful when doing custom programming.

Cheryl Peterson, a free-lance writer from Miami Beach, writes reviews for several computer magazines. Her CompuServe User ID number is 72366.2645.

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Talk to Us

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ONLINE TODAY

Decision Analyst

Helps You Improve Your Decisions

Executive Software Inc.
14 Green Pine Ave.
Barrie, Ont., Canada L4M 4S5
705/722-3373

Computers: Available for microcomputers using operating systems listed below.
Operating System: CP/M-80 version 2.0 or higher; CP/M 86; MS-DOS or PC-DOS version 2.0 or higher.
Media: Requires two floppy disks (140K minimum) or one floppy disk and one hard disk; MS-DOS and PC-DOS require 360K drives.
Copy Protection: None.
Required Peripherals: None.
Other Requirements: Minimum of 56K RAM for CP/M-80; minimum of 96K RAM for CP/M-86, MS-DOS and PC-DOS.
Optional Item: Printer.
System used for test: 640K Compaq Portable Computer with two 360K double-sided, double-density diskette drives and Hewlett-Packard LaserJet printer.
List Price: $139 (US)

Reviewed by Harry Green

Effective managers develop an instinctive ability to decide between alternative courses of action. Good decision makers have a process they follow, either consciously or unconsciously, to penetrate to the essence of a problem, weigh the alternatives, and select the one that promises the best result.

Decision Analyst is a program that leads you through the steps most experts use. It's entirely menu-driven, and requires few computer skills aside from knowing how to type. The program contains built-in help screens that explain each step of the process, and if requested, illustrate the step with a typical application. Experienced users can bypass the help screens.

The first step in any decision is to define the problem, and Decision Analyst gives you a blank screen with plenty of space for problem definition. Next, you're led through a series of queries, beginning with the legitimate question of why do anything at all?

If you're convinced that inaction won't solve the problem, you're asked to define the purpose of the decision and set the criteria that must be satisfied by any alternative worth considering. Criteria are classed as "musts" and "desirables." If an alternative fails to satisfy the "must" criteria, it's discarded. "Desirable" criteria are weighted by a set of numerical scores that must add up to 100 percent. Each criterion can be divided into sublevels, each of which also must add up to 100 percent.

Decision Analyst then provides a form so you can create an input menu to enter the alternatives. It is important at this stage to describe how well each alternative complies with the criteria established in the previous step. After alternatives are defined, they're evaluated against the criteria. Those that fail to meet the "must" criteria are analyzed no further. The program tallies the score of the remaining alternatives against the "desirable" criteria to develop a weighted score for each.

Next, Decision Analyst provides a menu for entering the consequences of each alternative. Finally, the program prepares a form that shows the final score and ranking of alternatives, after which you can make and document your final choice.

With only a few exceptions, the program is straightforward. Decision Analyst was originally written for a CP/M operating system, converted to MS-DOS, and carries over a few features that could confuse users who aren't comfortable with their computers. For example, when you exit the program, it asks if you want to return to CP/M. The problems are minor though, and most users will experience little trouble using Decision Analyst.

If you have difficulty making decisions, this program will be of considerable assistance. If you already make decisions with ease, the program is valuable for documenting them in a standard style. The documents can be stored and used later as a reminder of the criteria you used for making the choice. Whether you have two alternatives or a dozen, Decision Analyst can likely improve your decision-making techniques.

Harry Green is president of Pacific Netcom Inc., a Portland, Ore., firm that consults with businesses on using office automation and telecommunications to improve productivity. His CompuServe User ID number is 70007,431.

GO EBB or circle 21 on the Reader Service Form.

Science Trivia

GO SCE

Category: Science and Math

Q. All of the following are parts of Darwin's theory of evolution except...

A. 1) metamorphosis 2) survival
3) natural selection 4) struggle for existence
5) variation

(SEE ANSWERS ON PAGE 47)
A sample question from MINUTIAE™ — the trivia challenge, online in September.

GO SCE

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The management of *Super Disk* diskettes then hired all the top brains in the diskette industry to make the *Super Disk* product. Then these top bananas (sometimes called floppy freaks) created a new standard of diskette quality and reliability. To learn the "manufacturing secrets" of the top diskette makers, they've also hired the remaining "magnetic media moguls" from competitors around the world. Then all these world class, top-dollar engineers, physicists, research scientists and production experts (if they've missed you, send in your resume to *Super Disk*) were given one directive...to pool all their manufacturing know-how and create a new, better diskette.

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The *Super Disk* crew then assembled the newest, totally quality monitored, automated production line in the industry. Since the manufacturing equipment at *Super Disk* is new, it's easy for *Super Disk* to consistently make better diskettes. You can always be assured of ultra-tight tolerances and superb dependability when you use *Super Disk* diskettes. If all this manufacturing mumbo-jumbo doesn't impress you, we're sure that at least one of these other benefits from using *Super Disk* diskettes will:

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SSSD = Single Sided Single Density; SSDD = Single Sided Double Density; DSDD = Double Sided Double Density; DSQD = Double Sided Quad Density. DSHD = Double Sided High Density; TPI = Tracks per inch.

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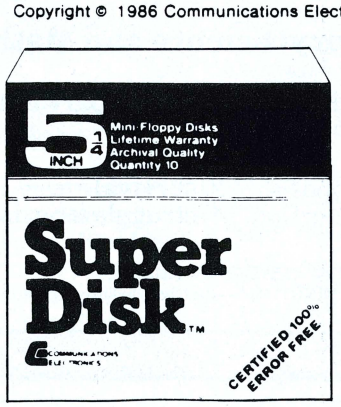

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Personal Computers and Data Communications

By Dimitris N. Chorafas
Computer Science Press, 1986
340 pages, $19.95 (softcover)
Reviewed by Harry Green

As I read *Personal Computers and Data Communications*, I felt an urge to mail the author a copy of Strunk and White's *The Elements of Style*, with a marker on the page that counsels authors to strive for "clarity, clarity, clarity." Dr. Chorafas is, I am sure, an individual who possesses profound insights into the confusing world of computers, office automation and data communications. Unfortunately, he has mired his brilliance in a morass of jargon, excessive verbiage and undocumented assertions.

From the title of the book, most CompuServe readers would assume it is intended for them, but this is not a technical book about data communications. The book is an attempt to explain the interrelationships of the emerging computer and telecommunications technologies, and to advise readers on the actions they should take to manage these systems for personal and office productivity.

It is not that his arguments are faulty. On the contrary, I believe he is on target; it is just that he makes his readers work too hard to grasp his points. I am reminded of a woman in a writing critique group that I attended years ago. She had traveled widely and insisted on using phrases that were understood only by others who had visited the same countries.

Chorafas has included tables, charts and statistics that I found intriguing, but he prints them without attributing the source, which makes me leery of their authenticity. His writing lacks precision, and I frequently found myself rereading in an attempt to understand what he was trying to say. Here is Chorafas on promoting office automation:

"It is quite understandable that organizations try to justify the new gear. Less understandable is the lack of appreciation that a limited scope will not allow this to be so."

I am sure there is a profound idea buried in the second sentence. I wonder what it is.

Despite its obscurity, this book has redeeming qualities.

If you are interested in the subject and good at winnowing, you will find many thoughts worth pondering. Some are arguable. For example, I am not willing to concede that "stand-alone personal computers are of little value, they just emulate machines that are now dead." He contends that personal computers must be networked to make them valuable. For lonely tasks such as writing, I suspect the stand-alone personal computer will outlive me. I may have missed Chorafas' point. If so, I will have made my own: he has an obligation to be precise.

The back cover states that Dr. Chorafas has written 51 books and speaks six languages. When someone translates this book into English, I will be among the first to buy it.

Harry Green is president of Pacific Netcom Inc., a Portland, Ore., firm that consults with businesses on using office automation and telecommunications to improve productivity. His CompuServe User ID number is 70007,431.

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- **a "Playoff" in Stage II** for the top 16 qualifiers (GO STAGEII). **WIN**: one of eight $75 "connect time" credits.
- **a "Tournament" on You Guessed It!** for the 8 finalists (GO YGI). **WIN**: a grand prize of a $150 "connect time" credit or a second prize of a $100 "connect time" credit.

Practice as often as you like (see above GO commands). GO MINUTIAE when you're ready to compete. You may attempt to qualify through any or all of the five quizzes on that menu each week. Qualifying rounds begin Wednesday, September 3. Plan now to be onstage with the host of YGI!, Bob Illuminati (who'll be "live" during the final round), vying for valuable "connect time" prizes. . .or looking on from the YGI! studio audience. For more details: GO MINUTIAE.

MINUTIAE™ on COMPUSERVE — it's the thought that counts.

Answers to previous questions:
(p. 41) 1. Henry James (p. 43) 3. Wilt Chamberlin
(p. 45) 1. metamorphosis

The BASIC Handbook:

Encyclopedia of the BASIC Computer Language

By David Lien
Compusoft Publishing, 1985 (Third Edition)
862 pages, $24.95 (softcover)
Reviewed by William J. Lynott

When *The BASIC Handbook* was first published in 1978, probably not one percent of our general population had ever heard of BASIC. Even among computer professionals, BASIC was often looked upon as a sort of country bumpkin — shunned in favor of the more structured high-level languages.

Since then, BASIC has evolved into the most popular computer language in the world. Fortunately, *The BASIC Handbook* has grown right along with it. The third edition, like its forebears, is the definitive reference work for serious BASIC programmers. Published in English and six foreign languages, its influence will continue to be felt worldwide.

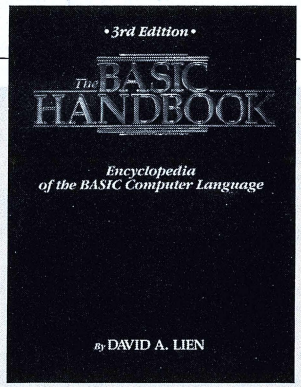
As soon as you pick up this volume, you cannot help but realize that it is a serious work, despite its softcover. From its handsome, rich look to its hefty bulk, *The BASIC Handbook* is every inch the aristocrat. In my view, it should be in the library of anyone who does any serious work with BASIC.

Like any encyclopedia, *The BASIC Handbook* is intended to be used as a reference text, not a tutorial. The author and his research assistants have attempted to provide an alphabetic reference for the hard core of 600 or so BASIC words that are common to most of the hundreds of different BASIC dialects.

All BASIC words in the book have been assigned to one of five categories: Commands, Statements, Functions, Variables and Operators. Words are listed alphabetically in dictionary fashion. In order to keep the book within manageable size limits, infrequently used or similar words have been cross-referenced to other terms whenever practical. For example, CLS and HOME perform the same function (clear the screen). Since CLS is in much more common use than HOME, the alphabetic listing is under CLS, with HOME listed as an alternate word.

A typical listing takes up one to two pages of text. The listing begins with a brief purpose of the word (the function it performs) and its category. This is followed by a detailed explanation of the proper format for its use. Each parameter shown in the format is defined and described. Next, specific examples are shown to illustrate how the word would appear in an actual program.

Brief test programs are provided, along with sample runs to show how the computer responds to the program and to illustrate what the screen display should look like when the program is properly executed.



There are few computer books on the shelf today that pack in as much value for the BASIC programmer.

Finally, when available, alternate words and spellings for accomplishing the same purpose are shown.

The book's appendices include helpful information on trigonometric functions, converting a program from another language to BASIC, converting from one BASIC dialect to another, and the use of graphics and sound in BASIC programming.

As an inveterate bookstore browser, I can tell you that there are few computer books on the shelves today that pack in as much value for the BASIC programmer or would-be programmer as *The BASIC Handbook*.

William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia. His CompuServe User ID number is 70007,420.

Making Your Macintosh Excel!

By Bill O'Brien
Scott, Foresman and Co., 1986
295 pages, $19.95 (softcover)
Reviewed by Cheryl Peterson

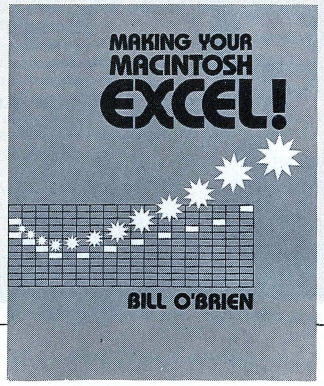
The documentation for Excel is no worse and considerably better than that provided with many other programs. Does the world need a separate book to learn how to use the program? Or is *Making Your Macintosh Excel!* another opportunistic piece of drivel purporting to make an already well-understood program easier to use?

The documentation for Excel is informative, complex and somewhat tutorial. But it is no fun to read. *Making Your Macintosh Excel!*, on the other hand, is informative and witty. While presenting helpful tips, with good examples and illustrations, it also is entertaining to read.

An experienced Excel user told me that if *Making the Macintosh Excel!* told how to turn off the gridlines when printing a spreadsheet, the book would easily be worth the $20 to him. It does. In fact, it also tells how to disable the grid on the screen. Although the information is available in the manual, it is not emphasized, so it is easily overlooked.

One interesting section presents a set of scripts for creating six useful applications. Another outlines the use of macros to simplify spreadsheet creation.

For the busy person who knows spreadsheets this is a good buy.



Printing pages and page-sized sections of a larger spreadsheet is explained with a diagram that instantly gives an understanding of the overall picture.

Making Your Macintosh Excel! also has a section on using the Switcher and the Minifinder. These useful extras are not even mentioned in the Excel manual.

The five appendices give helpful data in table form. One appendix details instructions and limitations for moving data from one spreadsheet program to another and back again. Another lists all of Excel's functions in alphabetical order.

For the busy person who knows spreadsheets and does not want to wade through Excel's documentation, this is a good buy. Well written, with simple explanations and plenty of illustrations, this one is worth the price.

Cheryl Peterson, a free-lance writer from Miami Beach, writes reviews for several computer magazines. Her CompuServe User ID number is 72366,2645.

Infomania:

The Guide to Essential Electronic Services

By Elizabeth M. Ferrarini
Houghton Mifflin, 1985
314 pages, $14.95 (softcover)
Reviewed by Lindsy Van Gelder

Anyone who has ever asked "But what would I ever *do* with a modem?" will find some answers in Elizabeth Ferrarini's newest book.

Unlike most of the other introductory telecommunications books on the market, *Infomania* is not organized into chapters describing different online services. Instead, chapters are arranged according to different interests: money, news, careers, learning, banking, travel, shopping, electronic mail and so on. In other words, if you do not know anything about modems but you know you would like to get news fast, turn to the "News" chapter. There you will learn about CompuServe, Dow Jones News/Retrieval, Nexis, NewsNet and other services, and you will be able to compare their performance in the area you are interested in. This is a useful feature.

Unfortunately, certain information is organized in a scattershot way. Although you can look up the Official Airline Guide in the travel chapter, you won't know — unless you read the whole book — that the OAG is available on CompuServe, ABA/Net, Compmail+ and numerous other services. Information on how to use MCI to send a Telex (in my opinion, one of the main reasons to subscribe to MCI) is discussed in a different section than the one specifically about MCI.

Another quibble: although Ferrarini does not belabor the sexual stuff, you would not know that from her title (apparently a reference to her previous book about her romantic adventures online, *Confessions of an Infomaniac*). Ferrarini may be in love with the phrase, but this is a book geared primarily to professional and business users, and her editor should have had more sense.

On the plus side, Ferrarini is pro-consumer, all the way. Too many authors of computer books rely on hardware and software manufacturers and online services to give them free samples to help their research, and then (sometimes subconsciously) they feel too indebted to write critically.

Ferrarini also has a lot of information at her fingertips — everything from a service for photographers to a database for potential adoptive parents. She will surely give many readers not only a guide to "essential electronic services" but also the realization that for many professionals today, electronic services *are* indeed essential.

Lindsy Van Gelder is a New York-based free-lance writer and a contributing editor of Ms. *magazine. Her CompuServe User ID number is 70007,1416.*

Jazz:

The Inside Track

By Timothy Berry
Micro Text Productions/McGraw-Hill, 1985
212 pages, $18.95 (softcover)
Reviewed by Joe Farace

Over the weekend, I went into my favorite bookstore. I strolled over to the computer section to see what new Macintosh books were available and saw an entire shelf filled with different books about Lotus Development's Jazz software. Among them was Timothy Berry's *Jazz: The Inside Track*.

The book is not much to look at. The front cover design did not grab my attention, and the quality of the printing and paper seemed so-so. For 19 dollars, I think a softcover book should look good. Compare this "Byte Book" to any one of Microsoft's computer books. All of them exude quality from cover to cover. *Jazz: The Inside Track* does not, but what about content?

I started to read the book before working with the program itself and quickly got lost. Take my advice and spend some time getting through some of Jazz's basics (like the Primer) before reading this book. Berry thinks the best way to learn any complex software program is by example, and I agree with him. Following through on this philosophy, his book includes real examples of how to create market and financial forecasts, graphs based on these forecasts, a customer database and more.

The section on telecommunications includes a complete transcript of an Easyplex transaction. This section especially is superior to the Jazz documentation, although there is one error: The author refers to hitting the [Command-C] combination to log onto CompuServe. My version of Jazz 1A refuses to do that, and accepts the "Enter" key instead. The book's last section shows how Jazz's Hotview feature can tie the different functions of the telecommunications program together.

After my initial reservations, I found that *Jazz: The Inside Track* is a useful supplement to the Lotus software. Despite the lack of good overall design, the writing is clear and informative. It belongs on the shelf, right next to your copy of Jazz, which is where I keep mine. What the heck! I guess you can't tell a book by its cover.

Joe Farace is a writer and photographer from Denver. He is a contributing editor of PhotoMethods *magazine and his reviews of Macintosh software will appear in an upcoming book from Arrays Inc.*

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Error-Checking Modems Introduced

Five new asynchronous error-checking modems have been introduced by Microcom for communications over two-wire dial-up lines.

The new modems operate in either asynchronous or synchronous mode through commands or front panel switch selection. Auto-dial, auto-answer, repeat and alternate number dial, and a nine phone number storage capability are standard features.

For information, contact Microcom's distributor, May-Craft Information Systems Inc., 4312 Beltwood Parkway S., Dallas, TX 75244; 800/527-7456 (nationwide) or 214/392-3766 (in Texas).

GO EBB or circle 27 on the Reader Service Form.

Stand-alone Modem

A compact, high-speed 2400 baud stand-alone modem designed for personal computers and terminals has been introduced by Prentice Corp.

Called the P-224, the full-duplex modem supports the Hayes AT command set. Features include auto-answer, auto-dial, fully automatic call monitoring, software control and auto-speed recognition on answer. Line difficulties are isolated and identified as they occur.

For information, contact Prentice Corp., 266 Caspian Dr., Sunnyvale, CA 94088-3455; 408/734-9810.

GO EBB or circle 28 on the Reader Service Form.

Online Enhancement

TSF (Terminal Simulation Facility) from Trax Softworks Inc., offering 3,270 terminals access to ASCII-based public databases, networks and electronic mail, has been enhanced to allow users to scroll back and forth through as many as 10 pages during an online session.

This extended scroll mode, new to TSF Release 3.09, places an image of the session in memory and permits the user to move freely within it. CompuServe, Tymnet and Telenet are among the systems that can be accessed with TSF.

For information, contact Trax Softworks Inc., 10801 National Blvd., Los Angeles, CA 90064; 213/475-8729.

GO EBB or circle 25 on the Reader Service Form.

Half-Card Smart Modem

Hayes Microcomputer Products has introduced a new version of the Smartmodem 1200B internal board modem that works in both full- and half-card slots.

Features include call progress monitoring, rotary and 16 DTMF or PABX dialing commands, built-in test modes, full Hayes Standard AT Command Set implementation, voice/data transmission, two phone jacks, 300/1200 baud transmission and redialing. Retail price is $549.

For information, contact Hayes Microcomputer Products Inc., P.O. Box 105203, Atlanta, GA 30348; 404/449-8791.

GO EBB or circle 29 on the Reader Service Form.

Sync-Up Modem

The Sync-Up modem from Universal Data Systems is designed for micro-to-mainframe terminal emulation applications, plugging into a single slot on the IBM PC, PC-XT, PC-AT and compatible computers.

The Sync-Up 201C operates at half-duplex at 2400 baud over the dial-up PSTN. The Sync-Up 208A/B provides two-wire half-duplex operation over the PSTN or four-wire full-duplex private line operation at 4800 baud. Prices range from $685 to $1,410.

For information, contact Universal Data Systems, 5000 Bradford Dr., Huntsville, al 35805; 205/837-8100.

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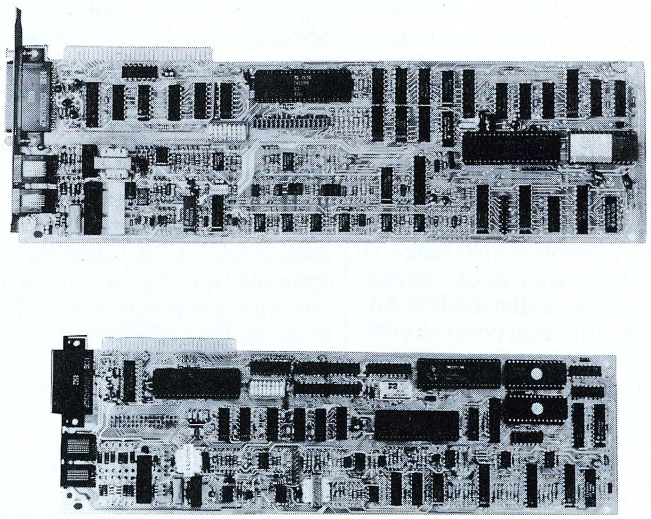


Microsoft Word

Microsoft Corp. has introduced Microsoft Word Release 3, a word processing program responding to corporate users by integrating an outlining capability, mathematical and sorting functions, and expanded support for laser printers.

Features include windows, footnotes, style sheets for automatically formatting documents, merge capacity for form letters and a spelling checker with an 80,000-word dictionary. New features of this release include a fully integrated outline processor, support of more than 70 models of printers, the ability to download multiple fonts for use on laser printers and more. Designed for the IBM PC, the program sells for $450. Registered owners can upgrade for $75.

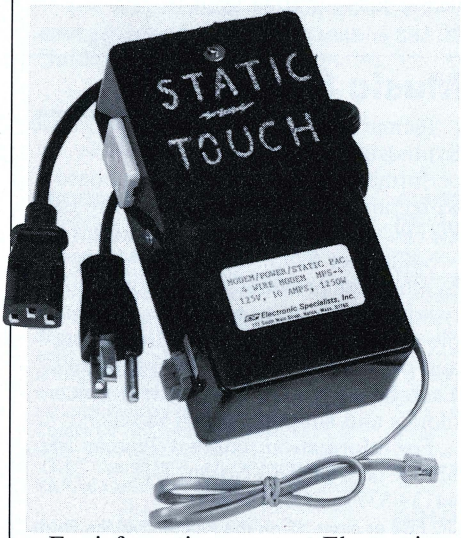
For information, contact Microsoft Corp., 16011 N.E. 36th Way, Redmond, WA 98052-6399; 206/882-8080.

GO EBB or circle 26 on the Reader Service Form.

Protecting Your Portable Computer

Electronic Specialists has introduced the Modem/Power/Static Pac to provide a complete protection package for the traveling portable computer.

Selling for $184.95, the unit combines Broadband AC power filtering, extended range spike suppression, modem RF filtering, modem spike suppression and a static discharge plate. Power is available from a conventional three-prong outlet and a CEE-22 universal portable computer power connector. Modem connection is through standard RJ-11 connectors.



For information, contact Electronic Specialists Inc., 171 S. Main St., Natick, MA 01760; 800/225-4876 or 617/655-1532.

GO EBB or circle 31 on the Reader Service Form.

Main Squeeze

SQZ!, a data compaction utility for Lotus worksheets, has been introduced by Turner Hall Publishing.

The program automatically and transparently compacts and expands worksheets 80 to 95 percent during loading and saving to disk. all file contact and information remains intact. SQZ! requires about 30K of RAM and is coresident in memory with DOS and 1-2-3 or Symphony. A password feature allows users to encrypt files against unauthorized use. Selling for $79.95, the program is designed for the IBM PC, PC-XT, PC-AT and compatible computers.

For information, contact Turner Hall Publishing, 10201 Torre Ave., Cupertino, CA 95014; 408/253-9607.

GO EBB or circle 32 on the Reader Service Form.

Wireless Modem

L.X.E. has introduced a new line of dumb and smart wireless modems that are an alternative to hardwire communications systems.

L.X.E. Wireless Modems speed information via radio frequency to completely eliminate the need for cable. Features include automatic transmission, timing, buffering and error-checking.

For information, contact L.X.E., 303 Research Dr., No. 225, Norcross, GA 30092-9989; 404/447-4224.

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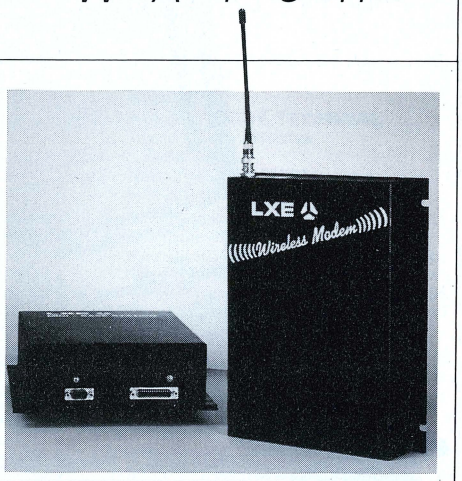

Speeding Up a PC

Maynard Electronics has released Surprise!, a high-speed board for the IBM PC that increases the PC's speed up to two and a half times the normal speed without using an expansion slot.

Selling for $249, Surprise! is placed directly onto the system's motherboard and installs in seconds. The unit can be toggled between fast and slow.

For information, contact Maynard Electronics, 460 E. Semoran Blvd., Casselberry, FL 32707; 305/331-6402.

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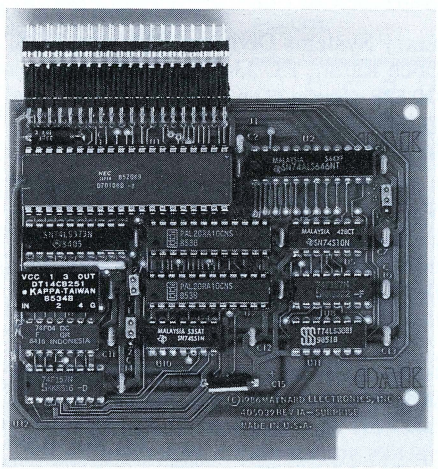


RamFactor Board

An expanded memory board with optional battery back-up for the Apple IIe and II Plus computers is now available from Applied Engineering.

The new RamFactor board allows Apple II users to start using Appleworks within one second of turning on the power. In addition, a free program switcher allows moving back and forth from Appleworks to other programs or operating systems in less than a second. Prices range from $239 to $389, depending on memory size.

For information, contact Applied Engineering, P.O. Box 798, Carrollton, TX 75006; 214/241-6060.

GO EBB or circle 35 on the Reader Service Form.

New Output Printer

Output Technology Corp. has introduced a near-letter-quality printer called the OT-700n.

The unit has a draft speed of 100 lpm and offers NLQ Helvetica font styling with 10-pitch printing at 31 to 51 cps. The new printer sells for $2,095.

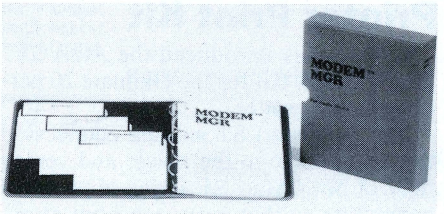
For information, contact Output Technology Corp., East 9922 Montgomery-Bay No. 33, Spokane, WA 99206; 509/926-3855.

GO EBB or circle 36 on the Reader Service Form.

Modem Mgr

Modem Mgr is a new modem communications program from MGR Software for the Apple II Plus, IIc or IIe microcomputers.

In addition to the standard features, the program provides a split-screen option with a type-ahead buffer display. While received text is displayed on the upper screen, the user can type text to be transmitted on the lower screen. This saves time during conferencing and allows correction of typing errors before the text is sent. A full-screen display is also supported. Retail price for both DOS 3.3 and ProDos versions, which are supplied together, is $50.



For information, contact MGR Software, Suite 101, 305 S. State College Blvd., Anaheim, CA 92806; 714/993-0294.

GO EBB or circle 37 on the Reader Service Form.

PC Convertible

The IBM PC Convertible from IBM Corp. is a 13-pound, battery-powered portable computer that sells for $1,995.

Features include an 80C88 microprocessor, 256K of user memory, 80-column by 25-line detachable LCD, a built-in, inclined, 78-key keyboard with full-size typing keys and dual 3½-inch diskette drives. Each diskette drive has a 720K capacity. also included are a battery pack and an AC adapter. An optional 300/1200 baud modem is available.

For information, contact IBM Corp., Entry Systems Division, P.O. Box 1328, Boca Raton, FL 33432; 305/982-3474.

GO EBB or circle 39 on the Reader Service Form.

Auto-dial Modem

Prentice Corp. has introduced a new 1200 baud modem with Hayes Smartmodem auto-dialing compatibility that can be rack-mounted or installed as a stand-alone.

Called the P-212AD, the modem offers full-duplex, asynchronous transmission over switched telephone networks at data rates of 300 or 1200 bps. Features include auto-dialing and auto-answering, Smartmodem-command control and on-board diagnostic indicators.

For information, contact Prentice Corp., 266 Caspian Dr., Sunnyvale, CA 94088-3455; 408/734-9810.

GO EBB or circle 41 on the Reader Service Form.

Music Synthesizer

Tecmar Inc. has introduced the Music Synthesizer System, a high-performance stereo synthesizer board with complete user software for the IBM PC, PC-XT, PC-AT and compatibles.

Selling for $795, the digital Music Synthesizer provides professional quality sound with up to 64 voices and multiple timbres, plus sequencer/recording and performance patching capabilities. Each board has 16 independent voice blocks and supports MIDI in/out.

For information, contact Tecmar Inc., 6225 Cochran Rd., Solon, OH 44139-3377; 216/349-0600.

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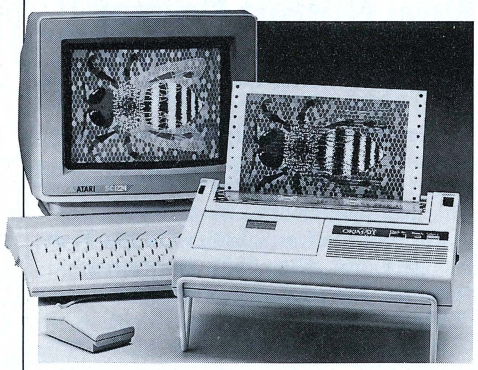

Printer Print Kit

Okidata has introduced the Atari ST Plug 'N Print Kit for the Okimate 20 personal color printer.

The new Atari ST module connects the Okimate 10 to the power and versatility of both Atari ST series of personal computers so that users can print more than 125 colors, creating high-resolution pictures, graphics and overheads. Retail price is $269.

For information, contact Okidata, 532 Fellowship Rd., Mt. Laurel, NJ 08054; 609/235-2600.

GO EBB or circle 38 on the Reader Service Form.

Can We Talk?

Computer Conversations has released Version 2.0 of The Enhanced PC Talking Program with features such as verbal color and highlighting identification for the visually impaired and learning-disabled computer user.

The Enhanced PC Talking Program turns MS-DOS computers into complete talking systems without hardware or software modification. The program speaks screen output generated by the user's database, word processor, spreadsheet or other software package and works interactively so all speech of screen output is in real-time.

For information, contact Computer Conversations, 2350 N. 4th St., Columbus, OH 43202; 614/263-4324.

GO EBB or circle 40 on the Reader Service Form.

Laser Printer

Harris Integrated Systems and Lanier Business Products Inc. have jointly introduced the H165 desktop laser printer, a compact, coax A, non-impact printer that attaches to a Challenger controller.

The laser beam is capable of 300 dots per inch in both portrait and landscape formats. The unit prints eight pages per minute. Weighing less than 100 pounds, the H165 is less than 18 inches in heighth and occupies less than four square feet of space.

For information, contact Lanier Business Products Inc., 1700 Chantilly Dr., N.E., Atlanta, GA 30324; 404/329-8000.

GO EBB or circle 43 on the Reader Service Form.

DisplayWrite 3 Course

IBM's DisplayWrite 3 word processing program now provides four self-study cassette lessons from FlipTrack Learning Systems.

"How to Use DisplayWrite 3" works directly with the program itself to teach step-by-step methods of creating, editing, printing and merge-printing a wide variety of documents. All that is needed is an audio cassette recorder. Retail price is $89.

For information, contact FlipTrack Learning Systems, 999 Main, Suite 200, Glen Ellyn, IL 60137; 312/790-1117.

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September issue, not valid after December 1986.

Our Town

The town I live in has had a hard time of it over the past couple of decades. The population has declined. Some of the industries have moved out or cut back. The recession of the early 1980s was particularly tough on its people.

Consequently, my town — not unlike some people when they are convalescing from a life-threatening illness — has been preoccupied with its own health for the past few years. Its confidence is shaken. It knows it is recovering, but it is not sure what kind of future awaits it and how it will have to adapt to its new conditions.

Lately, it seems as though my online community is going through the same soul-searching.

For the computer communications world, 1986 began with a jolt. The year was only a month old when it lost two major projects. Within less than two weeks, Knight-Ridder's Viewtron and Times Mirror's Gateway videotex experiments both folded last February. Our industry isn't large enough to absorb the failure of *any* of its members without feeling the loss.

For us, the end of Viewtron and Gateway set off a new wave of hand-wringing over the future of videotex. And, just as in my town, we got mixed signals from different quarters.

On one extreme, the head of an organization sponsoring a major videotex conference canceled all future such exhibitions, saying that the death of "classic videotex" services like Viewtron and Gateway meant that videotex "is dead (and) never went anywhere in any US environment." On closer examination, his remarks probably referred mainly to graphics-based videotex, rather than the text-based systems most of us are used to. Nonetheless, the comment sent shock waves through our community.

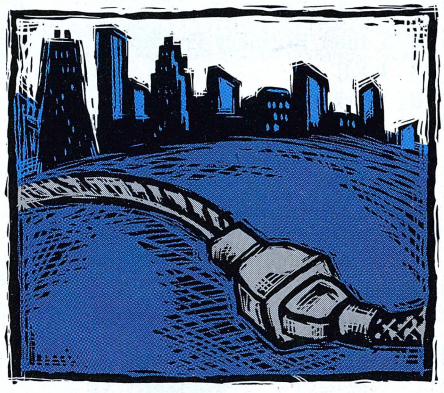
Meanwhile, from another quarter came the more encouraging words of premier number-cruncher Egil Juliussen of *Future Computing*, who said that, despite the recent failures, "Videotex has the potential for becoming one of the most important applications by 1990."

In that environment, the Information Industry Association, a Washington, D.C., based trade group of information providers, hired Alvin Toffler's Institution of Alternative Futures to study what kind of future we have, to determine "how new information business will affect mankind between now and the year 2000." The IIA study's purpose is to "detect the early signals of change that may portend major future shifts in the way people receive and use information."

In other words, all eyes — whether hopeful or cynical — are on the years ahead. And that is as it should be. We need to have our best thinkers out in front as our scouts — so long as we do not let our concerns for the future blind us to what we have accomplished so far.

In my town, our preoccupation with our uncertain destiny sometimes makes us take for granted the things that make us special — the safe streets, the beautiful parks, the friendly people. We need to remind ourselves from time to time that, in spite of adversity, we have maintained these characteristics that make a good quality of life.

Perhaps, we online have the same tendency to dismiss the things that come easy to us. However, in this period of re-evaluation, let us also ask ourselves, what is the quality of life online and how has it improved in the past half-dozen years?



Well, for one thing, we are a more diverse community these days. At the beginning of the 1980s, the people who pioneered these networks were of a single origin — the high-tech computer enthusiasts, the so-called "serious hobbyists." Fortunately, we are still drawing many of these technologically inspired folks to us, but now there is also an equal number to whom the workings of computers are no more fascinating than the technology of telephones and televisions.

A geographic community is enlivened with the arrival of new cultures and interests. The same revitalization is evident online, when services for wine-lovers and film buffs move in around the corner from those devoted to such things as programming the new chips and designing applications for dBase III.

Similarly, we also are seeing a better mix of people online these days. Early on, most of us were 30 to 35-year-old white, college-educated males who settled into a job in middle management or one of the professions. Now we have a healthier diversity — more women, more students who have learned about the online world through college or high school, and more families.

But all this diversity would mean little to the quality of online life itself if we could not interact — electronically talk to each other. The growth of one-to-one computer communications has been the most significant achievement online in the past six years.

We have watched real-time computer talk evolve from a novelty like the CB Simulator to broad-based forums that can be used by thousands of people with similar interests. At the same time, we have seen the forum or "special interest group" concept spread to other corners of the electronic world so that now virtually every dial-up consumer videotex service has at least one medium for subscribers to talk directly to one another.

This person-to-person communications serves the networks themselves as well as the individuals. Some of the best ideas for new features originate with the subscribers, and that keeps the systems innovative.

There are many examples. For instance, not long ago, the experts were saying our type of videotex was not *suited* for high-resolution pictures. However, the programmers at CompuServe came up with ways to transmit such graphics, and subscribers began experimenting. Their tinkering was a success.

Now there is even a forum devoted to high-resolution pictures. There were other experiments with color graphics. Others have written new kinds of communications software that create pictures to accompany online words.

It seems to me that when we are talking about the future of our medium, we need to think about protecting, above all others, this characteristic — the spirit of experimentation.

Sure, individual systems like Gateway and Viewtron will come and go. The variables involved in making a commercially successful videotex service are as numerous as those involved in making a successful new breakfast cereal.

However, if we keep encouraging our diversity and if we keep alive our innovative spirit, the medium itself should have a bright future.

Charles Bowen is a contributing editor from Huntington, W. Va. His CompuServe User ID number is 70007,411.

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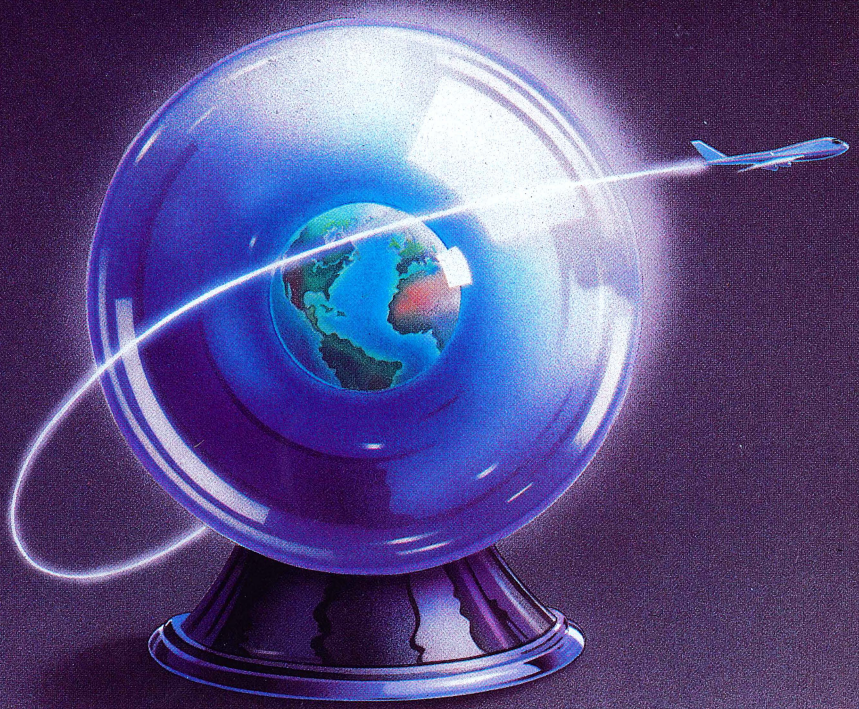

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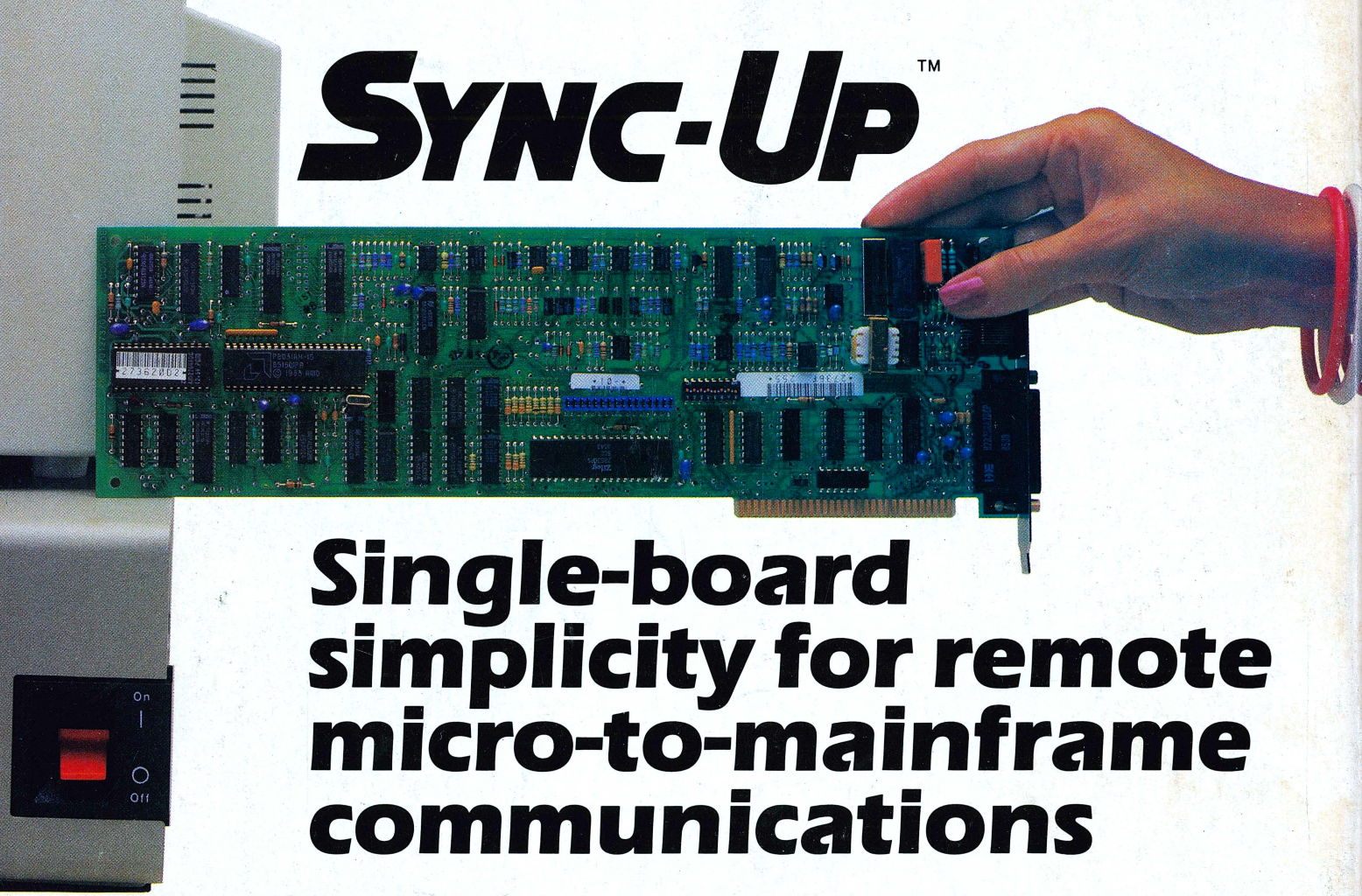

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